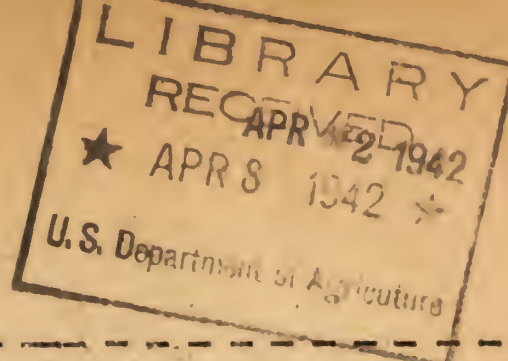


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The Daily Digest

Prepared by the Press Service for the use of USDA employees. Views and opinions in these items are not necessarily approved by the Department of Agriculture.

Washington, D.C., April 1, 1942

GLASS SUBSTITUTES FOR SCARCE MATERIALS. Business Week, March 21: As one of the few plentiful materials, glass is destined to replace unpredictable tonnages of metals like aluminum, brass, bronze, steel, and cast iron. In addition, as such unrelated nonmetallic substances as cork, synthetic plastics, asbestos, silk, rayon, and rubber become increasingly scarce, glass can be counted on to fill in. Fortunately the raw materials of glass (sand, soda ash, lime, most of the metallic oxides and sulphides that give it color and other physical characteristics, as well as the fuel for fusing the mixture) are plentiful.

Geographical distribution of both raw materials and manufacturing facilities is strategically and economically excellent. Great beds of white silica sand are found near the center of population, and far from the vulnerable coasts, in Indiana, Missouri, Ohio, and Pennsylvania. Salt wells and mines, whence comes the sodium for soda ash, abound in Michigan, New York, Ohio, and Pennsylvania; limestone in Indiana, Ohio, and Pennsylvania. Manufacturing facilities range across the country from New Jersey and New York through Indiana, Illinois, Oklahoma and Texas, out to California, the biggest operations being concentrated in Ohio, Pennsylvania, and West Virginia.

COST OF PASTEURIZING MILK FOR CHEESEMAKING. National Butter and Cheese Journal, March: Information from various sources and from experiments at the University of Wisconsin indicate the total cost of pasteurizing about 6,000 pounds of milk per day would approximate \$1.84. The cost per pound of cheese would amount to a little more than \$.003 if it is assumed that 576 pounds of cheese are produced from the 6,000 pounds of milk. Calculations show that the cost per pound of milk fat would approximate \$.009 when the milk contains 3.5 percent fat. There are gains in pasteurizing which tend to offset the costs. Usually there is a gain in yield because of the greater ease of controlling the composition of the cheese; this gain generally approximates 0.2 to 0.3 pound per hundredweight of milk. Other gains may be found in improved prices of cheese, because cheese made from pasteurized milk is better in quality and keeping properties.

April 1, 1942

TIRES FOR FARM MACHINERY, RUBBER SITUATION SERIOUS. War Letter for Agriculture, March 13: WPB has amended the farm machinery limitation order (L-26) to prohibit after May 1, 1942, manufacture of wheel type tractors, including garden tractors which require rubber tires. For March, tractor manufacturers are permitted to make 55 percent of the average monthly output of tractors using tires, and the percentage is cut to 40 percent in April.

The rubber shortage and its effect on farm transportation is critical, and demands that every farmer conserve his tires by eliminating unnecessary trips and pooling transportation with his neighbors. Already, county agents are reported in some cases without transportation because they cannot get tires. While it is true that farmers are placed in eligible classifications for truck and passenger tires, the shortage is so serious that eligibility may not make tires available. All unnecessary travel should be discouraged.

MASS. SETS UP RURAL WAR TOWN COMMITTEES. American Agriculturist, March 14: More than 300 Rural War Action Town Committees are being organized in Massachusetts under a plan announced by Willard A. Munson, director, State Extension Service. Each committee will encourage and assist rural people in maintaining agricultural production to meet war needs; help maintain maximum health through proper nutrition; assist rural people to maintain and build morale; and make plans for post-war adjustment and rehabilitation.

Six or more members will serve on each committee. These will include representatives of extension work, home demonstration extension work, 4-H club work, community Agricultural Conservation Committee, a vocational agricultural instructor, a public health or community nurse, representatives of the town government and local civilian defense organization. The committee will divide rural areas of the town into neighborhoods and appoint a "minuteman" who will be responsible for working with 15 or 20 families in the neighborhood. The minutemen will serve as connecting links between the rural war committees and individual farm families.

GOVERNMENT AGENCIES STUDY WORLD SUGAR SUPPLY. Victory (OEM) for March 10: The sugar section of WPB is concluding an exhaustive study of the world's sugar supply. Experts from various Government agencies were asked to assist in the survey. The agencies include Foreign Agricultural Relations, Sugar Division of the AAA, Surplus Marketing Administration, Bureau of Foreign and Domestic Commerce, Tariff Commission, and WPB Statistics Division. Every sugar-producing country in the world outside of the Axis powers and those dominated by the Axis are included in the survey.

MEXICO BANS CATTLEHIDE EXPORTATION. Hide and Leather and Shoes, March 14: Exportation of raw box hides from Mexico has been prohibited. Stock raisers have a big number of cattle they cannot dispose of on the Mexican market because of limited purchasing power of the population. A proposed solution would be to process and can the meat in Mexico and sell it abroad, while the hides would be used in interior markets. To fight speculation and obtain hides at reasonable prices, the tanners recently have formed the Cámara Nacional de la Industria de Curtiduría.

April 1, 1942

MADISON COUNTY (IA.) FARMS POOL LABOR. Farm Journal, April: Pooled labor and farm machinery will operate five Madison county (Iowa) farms this year. The five farms total 1,463 acres (ranging from 98 to 485 acres in size) with these crops: Corn, 258 acres; oats, 119; soybeans, 45; clover, 70; alfalfa hay, 66. Livestock: 20 milk cows, 290 beef cattle and 111 brood sows. Power and equipment: Two tractors, 16 horses, two tractor cultivators, two 2-row cultivators, five single-row cultivators, one binder, and two end-gate seeders. Tractors will be used 24 hours a day if necessary. Non-tractor farmers will return day labor for use of tractors. There is one hired man in the "pool." Four of the farmers are men (one soon to be called to the army), one is a woman. Two of the men have sons in the army.

CANADIAN FREIGHT AID BUILDS FLOCKS, HERDS. Vancouver report in Northwestern Miller, March 11: Poultry and stock breeders of British Columbia have built up their flocks and herds considerably during the past three months under the federal government freight assistance plan. This plan, which went into effect last November, provides for a government payment of \$6 ton on all feed grain shipped to the coast from the prairies. The saving in feed costs, which are such an important item in livestock feeding, has already been reflected in a sharp gain in breeding and all this aided in Canada's war effort.

FRUIT GROWERS' PART IN EFF PROGRAM. Secretary Wickard, in special message in American Fruit Grower, March, says: "American fruit growers have the responsibility of producing a vital part of the Nation's food supply. It is certain that they will do their job well. Fruit adds variety, vitamins, minerals, flavor and palatability to our diet. Fruits and vegetables are interchangeable. Consequently, fruit produced this year in the United States will enable us to ship more of certain vegetables to Britain. Fruit producers thus will contribute definitely to the success of the United Nations in prosecuting the war and preserving our freedom and our way of life."

ARMY TO BUY 18 MILLION POUNDS DEHYDRATED VEGETABLES. Science Service release, March 21: Dehydrated vegetables by millions of pounds will constitute part of the Army's vast shipments of supplies to our troops in Australia and elsewhere overseas. Quartermaster purchases of 18 million pounds of seven "bulk" vegetables have been announced, with more to follow. The vegetables to be handled in dehydrated form all contain large percentages of water when fresh; they are potatoes, sweet potatoes, onions, carrots, cabbages, beets and rutabagas. Elimination of excess water from potatoes alone will, save the army shipping space equivalent to two whole freighters.

PLUSH, NEW FEED BARLEY. Successful Farming, March: Plush barley, a new feed type introduced in Canada by the Brandon Experiment Station, is getting favorable reception in North Dakota where it is being tested at the state experiment station plots. A smooth-awned grain, Plush is a Trebi type. It has good length and strength of straw. It has disease resistance and is a good yielder.

April 1, 1942

MORE SWIFT NUTRITION FELLOWSHIPS. National Provisioner, March 21: Swift & Company has announced three new nutrition fellowships for nutrition research in American universities. H.J. Almquist, University of California, will make a special study on amino acids. At the University of Wisconsin, E.B. Hart and C.A. Elvehjem will investigate the vitamin B group factors biotin and an as yet unnamed substance termed the norite eluate factor. At Columbia University, H.C. Sherman, A.W. Thomas and M.L. Caldwell will seek to determine whether the benefit known to exist up to certain levels by enriching the diet with protein can be pushed higher by the addition of phosphorus and riboflavin.

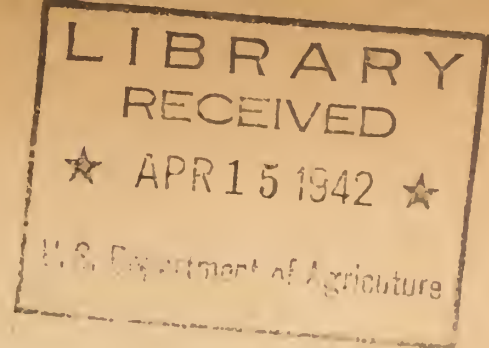
PRE-COOLING OF PLUMS NECESSARY IN MARKETING. Better Fruit, March: Thorough precooling before shipment is a vital factor in placing California plums on eastern markets in the firm ripe condition required by buyers, according to a report on co-operative plum shipping tests, carried on during the 1941 season by the California College of Agriculture, California Tree Fruit Agreement, and United States Department of Agriculture. When precooling produced temperatures of 40 degrees or less, the plums ripened very little in transit and arrived with the color and firmness desired by the trade, even though they had been almost full ripe and ready to eat at the time of shipment. The plums were scored in New York for flavor, appearance, and ability to stand up under the heat of the city's warmest summer in 80 years.

VITAMIN DEFICIENCIES OF CATTLE. Journal of American Veterinary Medical Association, March: Contrary to general opinion, avitaminoses (vitamin deficiencies) have increased during the last decade. Several factors have contributed to this rather rapid change. Higher producing milk animals and more rapid developing meat-producing animals are the result of greater care in the selection of parent stock and a better knowledge of animal nutrition. Both require a near perfect diet to avoid deficiencies.

The exacting and in many cases inconsistent demands of the consuming public has also entered into these troubles. For instance, the housewife demands dairy products with a distinctly yellow color, and at the same time asks for eggs with light colored yolks and beef with a perfectly white fat.

The greater prevalence of vitamin A deficiency during recent years has not been due to any radical change in feeding methods but rather to the general practice of storing corn, and to a lesser extent of storing hay. Yellow corn and alfalfa hay lose about 60 percent of its carotene content during the first seven months of storage. Approximately 75 percent is lost in 12 months. The loss is considerably less in winter than in summer and varies with the air currents.

NEW WPB UNIT TO EXPEDITE SALVAGE OF SCRAP. Office for Emergency Management release (WPB 634): The Bureau of Industrial Conservation has set up a special projects salvage section, in an effort to speed up the movement of tremendous quantities of potential scrap metal tied up because of financial, legal, or other reasons.



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Washington, D.C., April 2, 1942

FOOD PRODUCTION GOALS FOR 1942. American Journal of Pharmacy (February) reprints some of the 1942 FFF production goals (Background Information Series No. 1) with the following editorial note: "No field has a greater bearing on the nation's health and efficiency than that of food. The gigantic task facing our country in supplying ourselves and our allies with necessary food and commodities to guarantee an adequate diet is one which fortunately we are well organized to do. Our Department of Agriculture by being well organized in advance of the present emergency is meeting this challenge with a minimum of difficulty.....Great satisfaction should be felt by all that America has this capacity and that by such intelligent supervision these goals will be realized".

LARGE AREAS TOO WET FOR SPRING FARM WORK. Weekly Weather and Crop Bulletin, April 1: The week was unfavorable for agriculture, principally because of continuation of precipitation in large areas where soil in recent weeks has been too wet for usual spring work. Dry weather continued over a considerable southwestern area where moisture is needed. In the south Atlantic area, especially Virginia and the Carolinas, conditions were favorable for farm work and crop growth. Most farm work made good progress in the lower Great Plains. Elsewhere over the eastern half of the country, usual spring activities have become considerably later than in an average year.

Little corn has been planted in the east Gulf area, but in more western sections planting has become general as far north as Oklahoma. Heavy truck planting is reported from the Southwest, especially the lower Great Plains, while cotton planting made good progress in coastal sections of Texas.

Cold rain or snow was unfavorable for livestock in the northern Plains and some northern Rocky Mountain sections, especially on young lambs. Ranges need moisture badly in a large southwestern area. However, additional precipitation in the northern Plains will be helpful; some stations are reporting the wettest March of record.

No material change is reported in condition of winter wheat, with the outlook remaining favorable. In the western, normally drier, portion of the belt soil moisture remains satisfactory, except for unfavorable dryness in much of Texas. In Oklahoma subsoil moisture is still ample, but the topsoil is drying rapidly. West of the Rocky Mountains the outlook continues favorable. Only a small amount of spring wheat has been seeded in the southern portion of the belt, although seeding is nearly completed in the earlier sections of Washington.

April 2, 1942

CANADIAN BEEKEEPERS GET PRIORITIES. Dominion Department of Agriculture, Ottawa: War Production officials recognize the importance of the honey bee in wartime economy and have granted certain priorities to the beekeeper, who in turn should cooperate fully in providing for bees conditions that will enable them to work to their fullest capacity. Normally bees in Canada produce from 25 to 29 million pounds of honey each year, but they could double the output if necessary. Wax is another product of the bee now in great demand for many purposes. With certain sources of supply eliminated or curtailed, the honey bee must meet the emergency with greater production.

NUTRITION IMPROVEMENT IN WARTIME. Frank G. Boudreau, chairman, NRC Food and Nutrition Board and Committee on Nutrition in Industry, in Survey Graphic, March: The National Research Council's Committee on Nutrition in Industry is organizing controlled studies of the nutrition of defense workers to ascertain the effects of improved nutrition on absenteeism, accidents, and production. Great Britain did not await the results of such studies before taking action. When increased production of munitions was her greatest need, the Minister of Labor decreed that there must be a canteen in every industrial plant employing 250 or more workers. The work has been done by women on a voluntary basis, and its success makes it worthy of imitation.

A special plea is necessary for the continuation and intensification of research. Those who take the short view believe that in these critical times we can dispense with research and research workers, with the production and sale of costly and complicated laboratory apparatus and medical appliances. Nothing could be more shortsighted. Our ability to fight, to endure, and to produce is a measure of our health and morale, both largely dependent upon the adequacy of our diets and the state of our nutrition. Modern knowledge of nutrition is based entirely upon research. Research in nutrition will help us to win the war and to build up a better post-war world.

JAPANESE MIGRATION AND FARMING. San Francisco report in Florists Exchange, March 14: The Japanese have been informed officially that within 60 days they must move out of the western 150 miles of this coast. This applies to all, whether born in this country or Japan. There will be few if any trained greenhouse men in the area when the Japs are moved out.

Of greater interest is the disposal of the orchards and vegetable farms operated by Japanese. Many square miles are devoted to these crops operated by Japanese, and if nothing is done to carry them on there may be an acute shortage of vegetables and fruits, not only for local consumption but for shipment to all parts of the country and for canning. Another section of the horticultural industry that will be affected are the flower and vegetable seed farms in the central coast area. Thousands of acres are devoted to seed production. While none of these are owned by Japanese and little growing or harvesting is done by Japanese, the labor problem will be more acute.

April 2, 1942

SHEEP SHEARING FOR THE AIR FORCE. War Letter for Agriculture, March 13: WPB is appealing to California and Texas sheep raisers to plan now for shearing lambs and yearlings so that skins at slaughter will bear just the right amount of wool for manufacture into warm flying suits for our fighting airmen. Wool on skins used in the vitally needed suits must be between one-quarter of an inch and one inch in length. Most raisers will be asked to shear many animals which normally would be marketed with wool too long for the flying suits and to shear soon enough to permit a growth of wool of proper length by slaughter time. To protect raisers who shear immediately from financial loss, OPA has removed the ceiling on tanned shearlings. WPB requested tanners to offer better prices for shearling skins than was financially feasible prior to the removal of the ceiling. It is important that wool on skins be no more than an inch long because trimming longer wools to one inch or less is a difficult, expensive process involving the use of a special comb attached to the shearing head. The entire output of shearlings has been reserved for military uses.

DEVELOP CORK SUBSTITUTE FOR COLD STORAGE INSULATION. Science Service release, March 16: Lack of cork from Portugal and Spain for cold storage insulation will be averted by a new product made of materials found plentifully at home, says the Owens Corning Fiberglass Corporation. The new product is made of glass mineral wool, heavily coated with a durable asphalt that has a high melting point. The heat-insulating power of this product is equal to that of the best materials used for cold-storage insulation. It is strong, moisture- and fire-resistant, odorless, immune to rot, fungus growth and vermin. It is also light, important when used for roof insulation, since it permits a saving in the steel supporting structures, saving steel for the war program. The need of insulating materials for the protection of perishable foods has never before been so great as now with an army of several million men and a tremendous shifting population of war workers to feed, in addition to the usual civilian demands.

TREATED BLACK IRON CANS. National Provisioner, March 14: Following announcements in the press of a new product to replace tin in the treatment of steel sheets from which cans and other metallic containers are made, packers have written to the Provisioner for information on the material and the possibilities that the new metal could be substituted for tin plate in the production of cans for meat products. The new sheets are treated to produce a fine-grained phosphate coating upon them, thus providing a rust-inhibiting steel "black plate" which, when lacquered or enameled, is successfully used in bending, drawing, crimping, lock seaming and other forming operations without serious loss of finish adhesion or effectiveness. With these qualities, the sheets are suitable for the manufacture of bottle caps and a wide variety of containers. Not much hope is expressed, however, that even if the cans are satisfactory in most respects, enough of the treated sheets can be produced to alter the general canning situation materially in the near future.

April 2, 1942

REDWOOD REPLACES CRITICAL MATERIALS. Business Week, March 14: California's redwood industry is an outstanding example of cashing in on markets vacated by other materials that have been diverted to defense uses. The Redwood Assn., representing 95% of the total cut, recently announced that its members finished 1941 with a production record of 463,000,000 bd. ft. as against 364,000,000 bd. ft. in 1940. This showing has been made despite loss of redwood's major customer, the residential building contractor. And indications are that 1942 figures will be limited only by capacity of the mills.

Although such unusual uses as Fiber A for textiles have been promoted within the industry, much new business marks a turning back to earlier times when wood was far more plentiful than steel or concrete. For instance, to save cement and reinforcing steel, contracts for 16 miles of wooden sidewalk were let recently in the modern steel shipbuilding center at Vallejo, Calif. Promoted by California lumbermen is increased use of redwood for water, oil, and chemical storage tanks in place of metal and reinforcing steel. Railroads are returning to the old custom of trunking and capping. Due to the shortage of rubber-insulated cables for block signals, wires are laid in covered wooden trenches cut out of 4x6-in. redwood logs.

The redwood people are selling material for numerous 2,000-bushel grain cribs of a new laminated construction nailed together out of random lengths without steel ties or rods. War demands upon California's dairy industry started a barn expansion program until sheet metal priorities halted construction. Now plans are afoot to promote use of redwood for superstructures. Farmers in particular have been ingenious in replacing equipment with wood. One California rice grower, for instance, unable to repair a mechanical dryer, built a structure with compartments, each the size of a sack of rice. Redwood conduits underneath carry hot air to each compartment.

INDUSTRY NEEDS CHEMISTS TAKEN BY WAR. Hide and Leather and Shoes, March 7: War production in the vital chemical industry is being jeopardized by raiding the ranks of trained technicians to build up the armed forces, according to an American Chemical Society survey of 118 colleges and 29 corporations. The report said the schools have an "appalling shortage" of men in technical training, and that the corporations, production in many of which is falling off at a time when it is needed most, predict a 1942 shortage of from 2,000 to 3,000 technicians.

DRYING FRUITS ON THE FARM. Editor's note in American Fruit Grower, March: Dried fruits, as well as vegetables, probably will answer in part the problem of tin shortage for cans. We present in this issue the first of a series of articles on dehydrating fruits. This deals with sun-drying and artificial dehydration of small quantities of fruit for which only inexpensive or easily made equipment is required. The following articles will discuss larger scale dehydrating, equipment, and opportunities for profitable marketing of fruit in dried form.

The Daily Digest

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Washington, D.C., April 3, 1942

CANADIAN WOOL BOARD FORMED TO CONTROL SUPPLY. Canadian Textile Journal, March 27: Announcement on formation of the Canadian Wool Board Ltd., on the recommendation of the Wartime Prices and Trade Board and the Wool Administrator, was made last week. The Board will have exceptionally wide powers to take over the entire Canadian wool clip for the duration of the war and one year thereafter and purchase supplies of wool, tops, yarn, cloth, substitutes, etc., in world markets to build up a stock pile in Canada.

An Order-in-Council issued last week approves an advance account of \$10 million which will be made available by the Treasury as required. This money will be used for purchase of the Canadian wool clip and will finance commitments on wool tops, etc., in world markets. The Canadian Wool Board Ltd. will cooperate actively with the United Kingdom Wool Control and government authorities in United States.

TAG SALES SHOW FARMERS BUY FERTILIZER EARLY. American Fertilizer, March 14: Further evidence that farmers are cooperating in the war effort by buying their fertilizer early, to help prevent a congestion in transportation facilities later in the season, is furnished by the February record of fertilizer tax tag sales. Aggregate sales in the 17 reporting States were a fourth larger than in February, 1941. This followed an even sharper rise in January. Total sales in January and February combined amounted to 2,274,000 tons, an increase of 62 percent over the corresponding period of 1941 and nearly double the sales in the first two months of 1940. While the demand for fertilizer, under the stimulus of the food-for-victory program, a large farm income and extremely favorable price relationships, is probably at an all-time high this year, it is nevertheless true that the sharp rise in tag sales to date reflects the early buying program rather than the increased demand for fertilizer.

VEGETABLE JUICES. Market Growers Journal, March 15: Processors this year plan considerable expansion in the vegetable juice field. Carrot juice has been most successful thus far in challenging tomato juice, which until the last year or two had the field almost to itself. Beet, celery, and spinach juices also enjoy growing favor. Last year about 10,000,000 cases of tomato juice were packed, with a substantial increase expected this year.

April 3, 1942

WILL NEED WORKERS IN PACKING PLANTS. Editorial in National Provisioner, March 12: One idea sometimes found among packers is that the war industries' worst drain on the labor supply is over. This is wrong, as new and converted plants which will go into production this year will require millions of workers in addition to those now temporarily unemployed because of plant conversion. It is also a mistake to believe that packinghouse employes will be ineligible for work in war plants because they are unskilled or semiskilled; many workers in these classes will be put to some use because the war production job must be done and there are none too many hands to do it.

SEES POSSIBLE BULK SHIPMENT OF APPLES. Better Fruit, March: The manager of the Washington Growers' Clearing House Association told growers that bulk shipment was an entirely sound and practical means of transporting apples to many markets, and predicted that such procedure would be both common and economical as well as generally accepted before the war is ended. He was not advocating immediate or general abandoning of apple boxes. However, he thought there was a real danger of a car shortage next season. He said it was also possible there would not be boxes available for C-grade fruit, and if this was the case and processing plants were unable to handle all low grade tonnage, bulk shipments might solve the problem. He does not believe it would be wise to ship apples in bulk into far eastern markets, such as Boston, New York, Atlanta and the like. He does think there is a definite place in the scheme of things for bulk shipments into middle-western and prairie areas. His theory is that apples shipped and sold, whether in bulk, in sacks, in boxes or packages, are better than apples stored and unsold, particularly when the crop runs several thousand cars over estimates as it did this year on Delicious. For the most part, he believes the processing plants will be able to handle, and will want most of the low grade fruit, this coming year and so long as the war lasts.

DIPPING EMPTY CRATES REDUCES CODLING MOTH. Successful Farming, March: Dipping empty crates in April, before the codling moth emerged, greatly reduced the pest in Pennsylvania experiments. In one case 5,500 crates were dipped, the owner using 600 gallons of kerosene at a cost of \$48. Careful checks revealed as many as seven worms per crate, 97 percent of which were killed by the treatment. By October all odor and discoloration had disappeared from the crates. Storing empty crates in tightly screened rooms also helps to control the insect. By such careful methods some orchardists reduced codling moth infestation from 42 percent to four percent.

SULFA DRUG FOR POULTRY COCCIDIOSIS. Science Service release, March 17: Sulfaguanidine, a recently developed drug of the sulfa group, has been found effective in the treatment of cecal coccidiosis of poultry, by J.R. Beach, California College of Agriculture. Dr. Beach is now engaged in experiments to determine the possible value of the drug in other related poultry maladies. As yet, the treatment is on an experimental basis, for sulfaguanidine has not been released for general use and is still quite expensive. Its cost may be brought down, if a large-scale use can be found.

April 3, 1942

FORESTS AND PEOPLE. Article by this title, by assistant to Chief of Forest Service, in Scientific Monthly, April: The production of lumber and pulpwood that will be needed during our first war year bids fair to exceed 1936-40 five-year production averages by close to 35 and 70 percent, respectively. These 1942 levels represent perhaps a greater impact on forest lands than the impact of agricultural goals on farm lands. Under cutting and other woods practices that are still wide-spread on privately owned forest land, they represent destructive exploitation that has been accelerated by the war but is not necessary to help win it. And these practices are still further depleting and crippling a resource the products and services of which are vital to the everyday lives of a people at peace.

Perhaps this explains, in part at least, why the Secretary of Agriculture has said that we need "and we need now" some form of adequate public regulation of forest practices; why he has expressed the conviction that failure to protect and rehabilitate our forests "would be comparable to tearing down our defense factories, girder by girder, to get steel for munitions"; and why in his message of January 7, 1942, the President reminded Congress that "It is a part of our war effort.....to conserve our natural resources and keep in repair our national plant."

NO PRIORITIES ON CERTAIN FARM-STRUCTURE MATERIALS. War Letter for Agriculture, March 6: There is no priority on lumber, cement, stone, rock, tile, or glass. All building should be held to emergency needs justified by contribution to the war effort. Scarce materials for building should be applied for on a PD-1A form, if the materials are few and the suppliers limited to three or less. For a larger number of materials and a number of suppliers, the Project Preference Rating form P-200 should be used.

EXTEND PREFERENCE RATING FOR SCIENCE LABORATORIES. Victory (OEM) for March 10: Preference Rating Order P-43, which assigns a rating of A-2 for use of approved scientific research laboratories, has been extended to August 31, 1942. It was scheduled to expire on February 28. Only research laboratories recommended by a committee of the National Academy of Sciences are permitted to use the rating assigned by this order.

MORE GLASS CONTAINERS FOR FOOD. Fruit Products Journal, March: Millions of glass jars, bottles, and cups are taking over American's civilian canning needs. There is no glass shortage now to hamper producers in their efforts to get the jars and bottles. But there is a shortage of time and machines that necessitates all possible means of increasing production in an industry already working on a three-shift basis.

One expected change is to larger containers. The glass saved in moulding large capacity vessels can be used to cast into additional receptacles. A half-gallon of milk, for example, when delivered in half-pints, takes 64 ounces of glass to make the containers. If the delivery is in pints only 52 ounces of glass are needed and if quart bottles only are used, the glass weighs only 35½ ounces. A single container for the half-gallon weighs exactly half as much as the half-pint bottles handling an equal volume.

April 3, 1942

BREAD STANDARDIZED IN CANADA. Business Week, March 28: The most severe standardization yet attempted in the Dominion has hit bread, effective Mar. 30. Accustomed to a choice of about 40 varieties of bread loaves, Canadians will be restricted to 15 under a new order of the War-time Prices and Trade Board aimed to effect economies which will help hold the price under the present ceiling. Price Ceiling Czar Donald Gordon will bar bakers from handling dough for any kind of fancy loaf. Docking, twisting, cross-panning, and cutting of dough are out for the duration. Only four varieties of rolls may be baked.

SAFETY FOR CUBAN SUGAR SHIPMENTS. New York report in Northwestern Miller, March 11: Barges which will pass through the Florida keys and then via protected canals, bays and rivers along the seaboard to refineries, are planned to transport Cuban sugar this year. From 1,000,000 to 1,500,000 tons can be moved this way if present plans calling for about five barges carrying 600 to 700 tons, are consummated. Some barges and tugs are already available but additional building would not be difficult since they do not contain critical ship building materials. If the plan proves successful, it will doubtless be extended to cover other commodities.

TO DIRECT NUTRITION STUDY. National Provisioner, March 21: Charles G. King, professor of chemistry at the University of Pittsburgh, has been named scientific director of the Nutrition Foundation, which was formed recently by 16 organizations prominent in the food field. George A. Sloan, New York business man, will serve as president of the foundation.

SYNTHETIC RESIN KILLS RED SPIDER. Farm Journal, April: Death to red spiders is a synthetic resin accidentally discovered by P.A. Ark and C.M. Tompkins of the University of California. While searching for a crown gall treatment, a spray of phthalic glyceryl alkyd, a synthetic resin, was applied to plants heavily infested with red spiders. Five days later the researchers found that not only the adult pests were destroyed, but also their eggs. They tried the spray (2% solution) on many other plants with equal success.

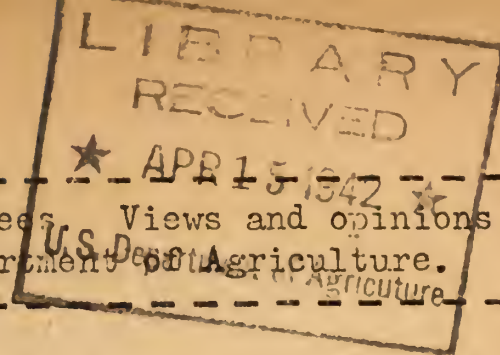
The new spray has no disagreeable odor, does not leave a residue, has high spreading capacity, and requires only one application to kill adults and eggs. It is a little too expensive for large orchard treatment, but should pay its way in greenhouses, nurseries, and home gardens.

DRIED EGG RECIPES. Indianapolis report in American Egg and Poultry Review, March: Under the direction of two members of the Purdue University School of Home Economics, recipes and formulas are being developed for the use of dried eggs to replace shell eggs. Huge drying plants have been established here and at Terre Haute and Union City, principally to prepare eggs for shipment to England, but when the foreign demand ends there likely will be an effort by those companies to seek a market in American homes.

WORN-OUT TIRES NEEDED FOR SCRAP. Office for Emergency release (PM 2675): Office of Price Administration says Americans who are holding tires worn to the point where they are no longer usable can help relieve the rubber shortage by turning them in immediately to a scrap or junk dealer or a local charitable agency.

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Washington, D.C., April 6, 1942

COOLING DRESSED POULTRY. Poultry Tribune, April: Poultrymen who do not have adequate dry cooling facilities for dressed poultry will be interested in the conclusions of an experiment at the State College of Washington. The water method of cooling which was tested consisted essentially of an insulated box or room filled with water which had been refrigerated to the point that the temperature of the water was about 33 degrees F. After plucking, the poultry was immersed in the water for a period for one hour, during which time it was cooled to within a few degrees of the water temperature. After cooling, the carcasses are stored in wire baskets above the water until marketed.

Conclusions are that the wet method of cooling and temporary storage of poultry in this experiment had advantages over the dry method. The wet cooled birds gained weight, while the dry cooled birds lost weight. When the wet method was used, the poultry cooled more rapidly, presented a better market appearance, and was equal or superior in flavor to the dry-cooled birds. The appearance of dry-picked poultry was not affected by the method of cooling, and its weight change was less than that of the scalded birds.

SECRETARY WICKARD SEES FOOD PRESERVATION PROBLEMS. Locker Operator, March: Secretary Wickard, alone, of all official Washington men, has grasped the magnitude of the food preservation problem ahead. Secretary Wickard's forebodings are equally as important as those of the Army and Navy. It will require the use of comparatively trivial amounts of material for food preservation equipment now to save a threatened loss of billions of pounds of perishable foodstuffs next summer and fall. Recently the secretary of the Refrigerated Locker Operators' Association of California wrote to Mr. Wickard asking him what plans had been formulated in Washington to speed up the use of lockers in the National Defense Program. Secretary Wickard replied that while there was as yet no program for frozen foods, he urged that all locker plant operators and their patrons be impressed with the great need for conserving foods in each community through freezing and storage, thus relieving to this extent the shortages now developing in tin and in transportation, as well as processing facilities.

April 6, 1942

REDUCTION IN NUMBER OF CONTAINERS. Market Growers Journal, March 15: Progress toward reducing the number of unnecessary and confusing packages used by the fresh vegetable and fruit industry was made at the National Container Conference in Chicago in February. The conferees concluded that more than 54 percent of all shipping containers now in use, or authorized by published tariffs, can be eliminated with economy and efficiency to the industry, and as a means of conserving vital materials needed for war production. In all, 604 fresh vegetable and fruit shipping containers were discussed. Of the 604 items under consideration, 50 serve dual uses. That is, each of the 50 is employed in two or more of the commodity groups. The total number of individual packages studied, and recommended either for acceptance as standard or for elimination, was 554. Though some opposition may develop among package manufacturers whose machinery is adjusted to special sizes and shapes, it is thought that the industry's combined influence, backed by that of the War Production Board, the U.S. Department of Agriculture, and the Freight Container Bureau of the Association of American Railroads, will overcome most objections to the program.

VITAMINS AS FERTILIZERS. American Fertilizer, March 14: A circular issued by the Texas Experiment Station, entitled "Vitamin B₁ (Thiamin) and Other Vitamins as Fertilizers," reports the results of tests of the new vitamin preparations which have been placed on the market in recent months. "Claims by those interested in selling them that vitamin B₁ (thiamin) or other vitamins when applied to plants will produce surprising results on flowers or growth of the plants are not justified by the tests made by scientific investigators.....Application of vitamin B₁ to soils in the growing of plants has probably a restricted field of usefulness, at the time of transplanting or for slow growing plants, but the majority of plants produce in their leaves sufficient supplies of vitamins for their own use and others secure it from the soil in sufficient quantity."

BRITISH CLOTHES RATIONS CUT. Canadian Textile Journal, March 27: A reduction in clothes ration of about one-fourth starting June 1 --- from 66 coupons a year to a rate slightly over 51 ---was announced last week by the British Board of Trade. The order will not affect industrial workers being applicable mostly to persons in sedentary occupations. Coupons on the current card will be valid until October 1, and supplementary coupons will be issued to children and workers. Under Britain's rationing system, the 66 coupons would buy a suit, raincoat, pair of pyjamas, pair of shoes, pair of socks, a shirt and two handkerchiefs.

SHORTAGE OF COW TESTERS, Prairie Farmer, March 12: Rock County (Wis.) farmers are having difficulty getting on the testing program for two reasons: one is the shortage of testers and the other is the shortage of tires for the testers. A plan is now being worked out to group the farmers for more efficient testing service, with the testers living in the area and thus eliminating much needless driving. Cow testers are not on the preferred list and cannot get tires.

April 6, 1942

FLAMEPROOFING OF FABRICS. Scientific American, April: Fabrics immersed in a solution of one pound of the new fire retardant, ammonium sulfamate, to one gallon of water, and then dried, will remain incapable of supporting fire until washed, when the treatment is repeated. Dry-cleaning does not remove the fire protection quality or appreciably impair it. This chemical newcomer is said to be unique because it does not affect the "feel" or appearance of fabrics. A few weeks ago a plant to manufacture the new industrial chemical by the tons was opened. It is the first and only plant of its kind in the world. The reason for it being built is that sulfamic acid and its derivatives are now known to be useful for more than a dozen important purposes, ranging from leather tanning and dyeing processes to killing poison ivy and ragweed — and now flameproofing textiles.

DIET IN RELATION TO DISEASE. Medical Record, March 18: In treatment of disease, and especially in its prevention, it is known that diet plays a great part, and it is hoped that in the future the incidence of disease will be reduced greatly by diet. To the lack of minerals in the food, perhaps, even more than vitamins, many deviations from good health are due. It was found by experiments with mice that skimmed milk conferred a considerable immunity from infection and in some animals increased fertility, while the young gained weight more rapidly and were less liable to die during the first weeks of life. If the results show that by the addition of skimmed milk to the diet the powers of resistance to infection are greatly increased, what effects might whole milk or some other foods produce? The results of these experiments are highly encouraging and give rise to the hope that the day may come when dietitians can provide us with a diet which will enable us to resist successfully all the onslaughts of germ infections.

NEW FREEZING PROCESS KILLS TRICHINAE. Science News letter, March 21: Pork can be made safe for human consumption, so far as trichinae are concerned, by proper freezing, USDA scientists have determined. Sections of pork or pork products not more than six inches thick are freed of the dangerous parasites by exposure to a temperature of five degrees Fahrenheit for 20 days, or ten degrees below zero for ten days, or 20 degrees below zero for six days. Thicker pieces may be made safe by longer freezing. The Department warns that in many food locker plants temperatures are not kept low enough to insure a complete kill in stored pork.

BILL PERMITS TRANSFER OF WHISKEY TO MOLASSES ALCOHOL PLANTS. Business Week, March 28: Congress this week passed a bill permitting transfer of 140 proof "high wines" (just plain raw whiskey) produced in the whiskey industry to molasses alcohol plants for redistillation into 190-proof alcohol. Grain-alcohol production can now be tripled, from the 65,000,000 - 70,000,000 gallons already scheduled for this year to upwards of 200,000,000 gallons. Grain will thus displace a total of about 1,600,000 tons of sugar that would otherwise be needed for alcohol. The current program, involving only such whiskey distilleries as can produce 190-proof alcohol instead of the 140-proof high wines, has already saved 550,000 tons of sugar, according to W.L. Batt, director of WPB's Materials Division.

April 6, 1942

AUSTRALIAN TARIFF AND TRADE CONTROLS. Foreign Commerce Weekly, March 21: The Australian system of import restrictions has been applied to a wide range of commodities from all sterling countries, except New Zealand and British and French Pacific Islands, effective January 1, 1942. The importation of about 643 items is prohibited, and many other commodities have been limited to a certain percentage of 1938-39 import values. Among the prohibited goods are foodstuffs (except salmon, sardines, and tinned crab and lobster meat), confectionery, furniture, vacuum cleaners, refrigerators, leather manufactures, boots and shoes, ready-made clothing, perfumery, and toilet preparations. Import restrictions in Australia on products from nonsterling areas and Canada, Newfoundland, and Hong Kong have been continued during the last two quarters of 1941 and the first quarter of 1942 with few changes.

FARMERS' COOPERATIVES COVER LARGER MARKET AREAS. Farmers' Elevator Guide, March: One reason for the decline in the number of cooperatives organized in recent years is that the present facilities for communication and transportation make unnecessary an association at every shipping point. Large organizations serving the growers of areas many times larger than those that were served by the associations of 25 years ago are now found throughout the country. These cooperatives serve a larger number of farmers, transact large amounts of dollar business, are better financed, and operate more efficiently. They are more effective economic institutions.

GUERNSEY SETS SOUTHERN BUTTERFAT RECORD. Southern Dairy Products Journal, March: "Klondike Jette," a seven-year-old cow of Elkin (Surry County), N.C., has established a new Guernsey butterfat record for the South. She produced 1,010.02 pounds of fat in 365 days of three-times-a-day milking in 1941. In making this outstanding Class A record, "Jette" became the first Southern Guernsey to produce as much as 1,000 pounds of fat in a year. Her milk production of 19,677.9 pounds last year breaks her own state record of 18,238.3 pounds, made as a $3\frac{1}{2}$ -year-old. This mark, which included 930.3 pounds of fat, was a world's record for Class DD Guernseys.

U.S. HAS RECLAIMED RUBBER CAPACITY OF 350,000 TONS A YEAR. The WPB Rubber Branch emphasizes that if scrap rubber is not returned to reclaimers in adequate quantities, this country's capacity of about 350,000 short tons of reclaimed rubber a year cannot be kept running at a peak level. All this reclaimed rubber is needed for war or necessary civilian purposes.

ASK ROTENONE CEILING, HOLD RUBBER DRUG SUNDRY PRICES. Office for Emergency Management releases, March 16: Acting OPA Administrator Hamm has requested grinders of powdered rotenone-bearing roots not to sell any quantity at a price in excess of 35 cents per pound for 5 percent pure rotenone content (PM 2700).....Also has requested manufacturers of rubber drug sundries not to advance prices above those in effect March 1 (PM 2703).

MUCH LARGER HARVEST OF HAY CROP SEEDS NEEDED IN 1942. Under this title, No. 7 of the FFF Program Background Information Series has been issued. It may be obtained from Keith Himebaugh, Office of Information, Washington.

The Daily Digest

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★ APR 15 1942 ★

Prepared by the Press Service for the use of USDA employees. U.S. Views and opinions
in these items are not necessarily approved by the Department of Agriculture.

Washington, D.C., April 7, 1942

DECENTRALIZATION OF FEDERAL BUREAUS. Washington Star, April 5:
Transfer of a dozen Federal bureaus to make room for war workers in Washington has involved the transportation of 7,246 tons of office equipment and records. On the shorter hauls to Richmond, Philadelphia, and New York, office equipment has been moved by motor truck. On the longer hauls to midwestern cities, it has been shipped by rail. Transfer of the REA to St. Louis began last week. Nearly 50 freight cars are being used to carry the official files and equipment of this agency to its new home. The first train, consisting of 23 freight cars, carried 31,000 separate articles of office furniture, ranging from Government files to well-worn wastepaper baskets and pencil sharpeners. Other bureaus already shifted, and the cities to which they are being moved, are: Patent Office, Richmond; Wage and Hour Division and Employees Compensation Commission, New York; Securities and Exchange Commission, and Immigration and Naturalization Service, Philadelphia; Farm Security Administration, Cincinnati; Railroad Retirement Board, Chicago; and part of the AAA, Columbus, Ohio.

CANADIAN DRIVE TO COLLECT SCRAP RUBBER. Foreign Commerce Weekly, March 21: A new drive to collect scrap rubber will be undertaken in Canada, with the objective of obtaining 25,000 tons of scrap in 1942. From this amount approximately 18,000 tons of reclaimed rubber will be made available for war purposes and for essential civilian goods. A Scrap Rubber Division is being set up in the Department of Munitions and Supply to arrange for the purchase by the Government of all existing stocks of scrap rubber and to pay freight charges to reclaiming plants at Montreal and Toronto. The Division will set basic prices to be paid for all used rubber articles.

REPORT ON DEHYDRATED VEGETABLES. March Fruit Products Journal: Interest in dehydrated vegetables is very keen at the present time because of the war. Previous papers on this subject published in the Journal during the past few months have brought a great deal of inquiry for additional data. Hence, even though vegetables are not within the scope of the publication, we reproduce the very complete Mimeographed Report of the University of California, issued last August and referred to in previous papers. The article will run for several months, because of its length.

April 7, 1942

NEW LABORATORY FOR MARKETING STUDIES. Article in Land Policy Review (BAE) for March: Much of the planning for agricultural marketing has merely analyzed existing systems and tried to improve a faulty structure already established. Now there appears an opportunity to start with a clean slate and plan the marketing organization and processing facilities for a large agricultural area before the usual inefficiencies have become entrenched. This area is the Columbia Basin Irrigation Project in Washington, the 1,200,000 acres of arid land to be irrigated from the Grand Coulee Dam.

Not an entirely new nor wholly different marketing system can be developed in this new empire, the equivalent in land settlement opportunities and eventual production of a new State. It is not to be a land of self-sufficiency with commerce only within and unto itself. Its fertile soils will yield heavily of many crops; much of its products will see far markets in exchange for things its people will want; it must be a part of our national marketing system. But at least within the project there is the possibility of establishing from scratch local marketing organizations and processing facilities to convert its products into articles of commerce.

SEASONAL EGG SIZE VARIATIONS. Poultry Tribune, April: A decrease in egg size during the summer months has been observed by many practical poultrymen and recorded in various egg laying contests and other flocks. Workers at the Kansas Experiment Station demonstrated that by placing hens in rooms where the temperature could be controlled, they were able to decrease egg size by increasing the temperature and vice versa. Since the drop in egg size which coincides with high summer temperatures also comes toward the end of the laying year, it has been suggested that the fatiguing effect of a long laying period may be the real explanation. Analysis of data from 10 different localities extending from Florida to Nova Scotia shows that whenever the maximum daily temperature remained consistently above 70 degrees F., egg size began to recede. Sharp rises in summer temperature were usually accompanied by corresponding declines in egg size. The results indicate that the summer decline in egg size is the result of high temperatures, rather than fatigue at the end of the laying year.

REA BACKS INEXPENSIVE MOTOR SPEED ADAPTER. Rural Electrification News, March: Moving to conserve precious war metals by making one electric motor do the work of many, REA has accepted the bid of a Manufacturing co. of Clarksburg, W. Va., to manufacture and distribute to REA cooperatives an inexpensive motor speed adapter. A simple motor stand with a floating jackshaft, the adapter has been used successfully with churn, meat grinder, cream separator, emery wheel, grindstone, flour mill, coffee grinder, shearing clippers, and other farm equipment. It is compact and portable.

The offer of the company provides delivery of adapters to the various co-ops at \$8 per unit, based on a total of 500 or more orders. For a smaller number, the price submitted is \$8.50. The price to^{the} consumer will be somewhat higher in order to pay costs of handling and delivery to co-op members. The purchase of adapters may be financed with REA funds.

April 7, 1942

UTILIZATION OF BY-PRODUCTS OF MILK. Under this title, article by University of California man, in Dairy World, March: In connection with waste from food establishments it has been pointed out by the Sanitary District of Chicago that food-products wastes of that district, of 4,050,000 population total 104 tons suspended solids per day, which are equivalent to a population of almost 2 million people in relation to sewage disposal. Milk products from 20 plants in that district are responsible for 4.8 tons solids per day, most of this being organic material, and from milk bottling plants.

In the dairy industry by-product utilization is more than waste prevention. Unquestionably much remains to be done to improve processing methods and control, but it is also highly important to conserve the food elements which are contained in drippings, whey, wash water, etc. and to convert them into human, or at least animal, food stuffs.

QUICK FROZEN FOOD TRUCKS. Quick Frozen Foods, March: About 80 to 90 percent of quick frozen fruits and vegetables consumed in the Pacific States is transported by mechanically refrigerated truck lines up and down the coast. In small jobbing markets the jobber of frozen fruits and vegetables faces the problem of buying small lots of a wide variety. A mixed load of 15,000 or 20,000 pounds of various quick frozen products delivered by refrigerated truck is more economical than a carload of 40,000 or 45,000 pounds by railroad.

Dispersion, or breaking up of carload lots, is allowed by both the railroad and the trucking company. This involves largely small lots, sent from the wholesale and jobbing markets to the smaller consuming markets which cannot absorb the whole carload of 40,000 to 45,000 pounds of frozen products within a reasonable time because of lack of storage facilities. A full carload for the refrigerated car is about 45,000 pounds; for the refrigerated truck, 18,000 pounds, and 22,000 pounds for the trailer. Both the railroads and the trucking companies allow a "mixed-car," or load made up of a variety of frozen products.

TRENDS IN COOKING UTENSIL MATERIALS. Consumers Union Reports, March: Because of priorities restrictions on aluminum, stainless steel, etc., the trend is to cooking utensils made of enamelware, glass, cast iron. Enamelware is well suited for saucepans, double boilers, and roasting pans. It absorbs heat quickly but spreads it slowly and not too evenly. To be on the safe side, don't use enamelware utensils for preparing or storing highly acid foods — citrus fruits, tomatoes, sauerkraut, etc.

Despite its high price, the several advantages of glass are making it increasingly popular as a material for every type of cooking utensil. Its transparency allows the cook to watch the contents. The same utensil may be used to mix the food, cook it, serve it and store it in the refrigerator. Though not quite so high in heating efficiency as aluminum or enamelware, glass can produce a tender, even crust on baked products.

Cast Iron is heavy and not too convenient to use, but it makes good and extremely durable skillets, griddles and Dutch ovens. Cast iron utensils are not easy to clean, and will rust if not dried thoroughly after washing.

April 7, 1942

CANADA FREEZES FLAXSEED STOCKS. Winnipeg report in Northwestern Miller, March 11: Increased evidence of urgent need of oils for wartime production is contained in an order-in-council freezing stocks of flaxseed in all positions in Canada. The order adds that special inducements are necessary to encourage the production of flaxseed in Canada in 1942, and that these inducements must be planned within the present ceiling prices for flaxseed in Canada.

CLOSER SPACING OF CORN. Farm Journal, April: Closer planting looks like a coming thing in corn growing. Coupled with sound methods, closer planting can boost yields considerably. Tests with hybrid show that hybrid corn can be planted about 15% heavier than open-pollinated corn with no extra fertilizer. The additional yields take more plant food out of the soil, of course. It might be possible to increase the planting rate considerably with hybrids and gets a heavier yield if corn growers would be satisfied with some barren stalks here and there, and also with smaller ears of corn. Most farmers, though, gauge the yield by the size of ears.

APPLES AID IN RIPENING MATURE GREEN TOMATOES. The use of ethylene gas in ripening tomatoes which do not color readily late in the season has been practiced on a commercial scale for some time. The gas may also be used on a home basis with apples as a source of the ethylene, points out A.G.B. Bouquet, head of the vegetable crops work at Oregon State college.

Either ripe apples or pears give off ethylene gas in small but continuous quantities. In an experiment conducted by Bouquet, boxes of mature green tomatoes were put in a room at a temperature of 63 to 72 degrees. Some of the boxes contained a few ripe apples, while others had tomatoes alone. Those with apples were sealed shut to confine the gas.

At the end of 10 days, 98 percent of the tomatoes in the boxes with apples were colored and ripe, while the remainder were yellow to half red. In the unsealed boxes containing tomatoes alone, a third were still completely green, while less than half were colored and ripe.

U.S.-ANGLO ECONOMIC PACT. Business Week, February 28: The significance of this week's Anglo-American economic pact is the most important evidence to date that the President is losing no time in implementing the declarations of the Atlantic Charter. Objective of this week's pact--and others that will follow--is to pin certain responsibilities on Britain to collaborate fully in building a vast new trading bloc of free, democratic nations.

London will find it difficult not to fall in line, for Washington already is working out the pattern with Canada and the whole of Latin America. Under discussion are plans for stabilizing hemisphere currencies, speeding north-south communications, industrializing Latin America, and exploiting tropical raw materials which heretofore have been supplied to the United States mainly from the territories of the British Empire.

CANNERS MAY BUILD BOX STOCKPILES. Office for Emergency Management release (WFB 640): The Division of Industry Operations, in General Inventory Order M-113, effective March 23, permits canners and can manufacturers to obtain a stockpile of boxes for future 1942 requirements.

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Washington, D.C., April 8, 1942

WINERY BY-PRODUCTS SOURCE OF DEFENSE MATERIAL. Editorial in Fruit Products Journal, March: Stressing need for all-out cooperation between the wine industry and Federal research and defense agencies, the secretary-manager of the Wine Institute, told California grape and wine growers that winery by-products constitute an important potential source of defense materials. "Considerable progress has already been made toward alleviating at least one serious shortage caused by war conditions. Previously, more than 90 percent of the tartrates used in baking powder, photographic chemistry, and the production of certain medical supplies, has been imported from the wine producing countries of Europe. With these sources cut off, U.S. wineries are the sole remaining suppliers of this vital material."

California wineries last year provided a market for more than 1,100,000 tons of grapes, which in turn resulted in the production of millions of pounds of by-products for use in defense industries. Although there has been a sharp drop recently in wine consumption, 1941 consumption of California wine was approximately 89,275,000 gallons, an increase of 17 percent over the preceding year. During the past year, the industry paid approximately \$16,000,000 in Federal wine excise taxes alone.

SOYBEAN FIBER PRODUCED ON LIMITED SCALE. Scientific American, April: Limited production of soybean fiber has been announced by the Ford Motor Company which has been operating a "pilot" mill for several months which is capable of spinning upwards of 1000 pounds of the fiber a day. Research chemists who developed the material estimate that eventually the thousands of pounds of wool now used annually in upholstery can be supplemented by at least 25 percent of this new fiber. Early production will be put to this use, for which the new product is ideally suited because of natural crimp and a high degree of resiliency.

DRIED EGGS FROM U.S. PLEASE BRITISH. Poultry Tribune, April: That dried eggs from the United States are reaching England in good shape is attested by the following item appearing in a recent issue of the Poultry Farmer: "America may like to know that the dried egg powder which she is sending over is a beautiful job. The powder is perfect and the packing is the marvel of all recipients. The thin wooden boxes which are used would, with a lick and a polish, be an ornament in any home."

April 8, 1942

ARMY TESTS SUBSTITUTE MATERIALS FOR SHOES. Business Week, March 28: The Army Quartermaster Corps is field-testing a new type of plastic sole for soldiers' shoes. This vinyl resin material, said to be several times tougher than leather, is flexible, serviceable, washable with soap and water, polishable, and not creaseable or checkable under conditions of ordinary wear. Other substitute materials are being used for insoles, counters, box toes, fillers, and shanks. Rubber heels are harder to get, but reclaimed rubber may still be used for making rubber heels. Some manufacturers have discontinued making crepe soles. Production of Army shoes at the current rate of about 2,500,000 pairs a month, along with sufficient output of civilian shoes, may be accomplished without additional machinery.

DIET OF AMERICANS IN GERMAN CAMPS. Science News Letter, March 21: First accurate account of what American prisoners are fed in a German prison camp was made public by the American Red Cross, which described the diet as "slightly insufficient." The American internees, about 300, are at a prison camp at Laufen, near Salsburg, Germany, and are reported badly in need of cloaks, clothing, underclothing and shoes by an International Red Cross Committee delegate who visited them. Headquarters here cabled \$5,000 to Geneva, Switzerland, for purchase of needed clothes.

The diet, which includes an unknown "food paste," is the same as in other prison camps and consists of per month, meat 1,325 grams; fish 248; margarine 720; cooking fat 320; food pastes 500; marmalade 770; potatoes 4 kilograms; cabbage, carrots 6 kilograms; sauerkraut 1080 grams. In addition there is a ration of 330 grams of bread per day. Usual menus: Morning, tea substitute; noon, soup containing 40 grams meat, 25 grams beans, 10 of fat, a few potatoes; evening same, sometimes kraut.

LOCKER PLANTS STORE BLOOD PLASMA. March Locker Operator: Locker plants in the Dallas, Texas, area are being used for storing blood plasma from the stock at the Baylor Hospital in Dallas. Because of regulations governing the release of military information, neither the quantity of blood plasma being stored, nor the locations of the plants where this is being done were revealed.

PLASTICS CATALOG 1942. Scientific American, April, reviews the 1942 Plastics Catalog in the book department because "here is one catalog that is so much more than a mere listing of products that it has made for itself a definite place in the literature of the plastics industry. Bound in simulated leather, this volume has become an indispensable source of information and reference for anyone connected with or interested in plastics in general. The text is divided into nine main sections, the titles being: Plastics in Defense; Materials; Plastics Engineering; Production Operations; Machinery and Equipment; Laminates, Vulc, Fibre; Plastic Coatings; Syn. Fibers and Rubbers; Index and Directory".

CHANGE PLACE OF BABY CHICK CONVENTION. Poultry Tribune, April: Hatcherymen will hold their national convention in Grand Rapids, Mich., this year instead of in New Orleans, La., as originally planned. The shift became necessary when the New Orleans exhibit hall was taken over for use of the Army. The convention dates remain the same as originally planned, July 21-24.

April 8, 1942

CANADA CUTS TEXTILE MILL OUTPUT. Canadian Textile Journal, March 13: Utilization of industrial plant, labour and services for maximum production of war matériel in Canada, as in the case of textile manufacturing industries has curtailed facilities for manufacture of civilian goods. Employment of available plant for other than war production implies the utmost in efficiency and economy in order that maximum output may be obtained, consistent with conservation of raw material and other resources. Production for civilian needs occupies a high place in the war economy and is receiving more and more attention by government agencies concerned with maintaining a flow of goods to consumers under price restrictions.

Specific recommendations on restricted production of wool cloth and blankets in Canada for civilian use, in order to conserve wool supplies in Canada and reserve maximum quantities of raw materials for military purposes, were made last week in the Wool Administration offices. Production of wool goods for civilian purposes has already been drastically curtailed in Canada this year, due to the weight of war orders. Whereas a year ago 75 percent of available plant was utilized for civilian goods production, today only 40 percent of available plant is available for civilian trade.

PAPER BAGS CONTAIN WOOL. Farm Journal, April: Paper bags will carry much of the 1942 wool clip. These are mesh-type, made from material similar to that going into paper twine for tying fleeces (only stronger and twisted harder). Introduced some years ago to prevent contamination of wool by jute fibers (which do not take wool dyes), these paper bags have been fairly satisfactory.

MICHIGAN REGULATES FOOD LOCKER PLANTS. Locker Operator, March: A new Michigan law gives the State Commissioner of Agriculture authority to make such rules and regulations incidental to the operation of locker plants as shall seem necessary for the enforcement of the provisions of the act and the protection of public health.

ARMY MEAT QUICK-FROZEN. Quick Frozen Foods, March: Multiple plate freezers are being used to freeze meat for the army and navy at a plant in Indianapolis. All meat is boned and put up as steaks, roasts, chopped meat, stewing and boiling beef, all steer meat, and for the latter two items the grade is equal to U.S. Good. Steaks and roasts are frozen in 5 lb. sizes and packed 10 to a shipping carton. The chopped meat is ground and molded in 10 lb. loaves, five packed to a shipping case. The ratio of cutting out of a steer is about 50% steaks and roasts, 25% stewing and boiling beef and 25% chopped meat. With quick freezing the meat is frozen in from 4 to 5 hours for a five pound loaf.

HIGH PRODUCING HENS ARE HEALTHIER. Successful Farming, April: Egg-production records kept on 382 Ohio flocks over a period of six years disprove the theory that high egg production lowers the vitality of the hens and makes them more subject to diseases. Thirty-six of these flocks with an annual average of 184.7 eggs per bird had a mortality rate of 14.4 percent; while 24 flocks which averaged only 128.5 eggs per bird had a mortality rate of 26.1 percent. The records kept on other flocks also showed that the hens which produced eggs at the lowest average cost were the healthiest.

April 8, 1942

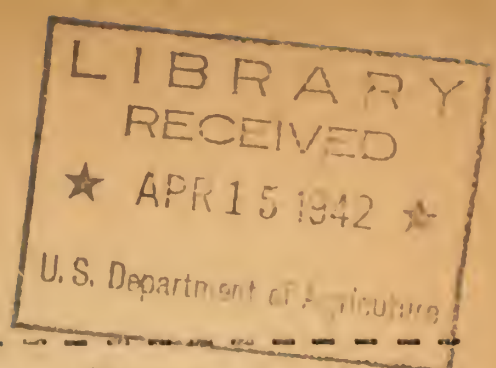
TRAIN WOMEN TO OPERATE FARM MACHINES. Implement & Tractor, March 28: Thousands of farm women and girls capable of operating tractors and other farm machines are expected to graduate from a training program launched in February by a farm machinery company in an effort to alleviate the growing shortage of farm labor. The program, nation-wide in scope, will be carried on by the company's 6,500 farm equipment dealers in this country. Already many dealers have volunteered to conduct the training schools. The program calls for a minimum of eight lessons, but the company recommended last week that dealers who are able to do so expand the course to 12 or even 16 lessons. The retailers will select women for the training course on the basis of qualifications and need. Training for those selected will be free. Dealers have been cautioned to select only farm women and girls who are in earnest and whose purpose is to work on farms when their training is completed.

POULTRY IMPROVEMENT COSTS LESS THAN REPLACEMENT. Hatchery Tribune, April: A recent survey in one state revealed the fact that certain hatcherymen spent five times as much on chick replacements as on a breeding improvement program. The hatchery operators concerned seemed to take early chick losses among their customers as a matter of course,— something that could not be avoided. But something can and should be done about it, if poultry raisers throughout the country are expected to make money in the years to come. The problem is not only one of early chick mortality, but also involves laying pullet mortality and low egg production by the pullets that survive. Under present conditions entirely too much money is spent on replacing the flocks of the country annually. Too many commercial hatcheries are so much concerned with the quantity of chicks sold annually and so little concerned with their quality.

ARMY TO SALVAGE GREASE. National Provisioner, March 28: In a recent order by the Quartermaster General, Army, posts, camps, and stations have been requested to salvage all food waste, both as an economy measure and to conserve needed materials. Food waste will be divided into four classifications for sale under definite quantity contracts: (1) Cooked grease, both rough and clean, including spent frying fats; (2) Raw bones and raw meat trimmings; (3) Kitchen waste fit for animal food, excluding grease, bones and raw meat trimmings, and (4) Trap grease from interceptors.

EXTEND PREFERENCE RATING FOR SCIENCE LABORATORIES. Victory (OEM) for March 10: Preference Rating Order P-43, which assigns a rating of A-2 for use of approved scientific research laboratories, has been extended to August 31, 1942. It was scheduled to expire on February 28. Only research laboratories recommended by a committee of the National Academy of Sciences are permitted to use the rating assigned by this order.

SUBJECT HEADINGS FOR COTTON. Agricultural Library Notes, March, contains subject headings for cotton as used in the Department Library. A note says "this is the first of a series of lists of subject headings which will appear in the Notes from time to time if they are found useful."



The Daily Digest

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Washington, D.C., April 9, 1942

WEATHER BETTER FOR SPRING FARM WORK. Weekly Weather and Crop Bulletin, April 8: In many sections that have been persistently wet, sunshine and winds dried soil rapidly and permitted resumption of field work. Good progress is reported in spring plowing and planting, although in some interior sections lower lands are still too wet for working. Heavy plantings of home gardens are indicated, especially in the Southwest, with some local planting of spring truck and early gardens as far north as southern Michigan. A considerable southwestern area, principally Texas, is still too dry, while rain is needed in some Rocky Mountain districts. Seasonal farm work is behind average from the Mississippi Valley eastward, but is advancing rapidly. Except in the dry Southwest, conditions were favorable for livestock; in Texas range is furnishing scanty grazing and supplemental feeding is necessary. Considerable damage was done by winter freezing to peach buds in the southern Ohio Valley, but in most other sections the outlook for fruit is promising, especially for peaches in the Southeast.

Conditions continued favorable for winter wheat, except for need of rain in parts of the southwestern belt and insect damage in portions of the lower Plains. In other sections, with high temperatures and ample soil moisture, wheat made good growth. In south-central counties of Oklahoma green bug damage has been serious and abandonment of small grains heavy, with infection spreading. Many abandoned fields are being replanted to corn and sorghums.

Corn planting became more active during the week. It is under way in most sections of Arkansas and is becoming active as far north as eastern North Carolina. In Texas early corn is up to good stands, but it is too dry for good germination of late planted.

Considerable cotton was planted in southern parts of the belt, extending in the east as far north as the southern coastal plains of North Carolina and locally to southern Arkansas. In Texas early planted cotton is showing good stands. In California seeding is late because of recent cool weather, but is well along in Arizona.

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HAZARDS OF INFLATION. Article by this title, in Nation's Agriculture (AFBF) for April: In a democracy the most likely procedure is one in which some control is exercised over prices. Obvious inequities are dealt with and absolute war essentials are rationed. This policy permits a closely regulated free market. Under the pressure of increasing demand, decreasing supplies, and cheapening money the price level gradually tends to work higher. The price fixer becomes not a fixer but a regulator trying to keep some semblance of balance in an essentially unstable situation.

The only real prospect for preventing a runaway inflation lies in a policy of sound war finance. Taxes can be increased so as to reduce consumers' money incomes. Forced saving and bond sales are other means to the same end. In any case the important thing so far as inflation control is concerned, is to drain off into the war the surplus money income which otherwise would be used by consumers to bid against each other for the constantly diminishing supply of consumer goods.

Farmers have more to lose than to gain by inflation. The few years of good times, while prices are rising, never fully compensate for the long hard grind of deflation. Inflation may last a few years. Deflation usually stretches out over many years. Farmers should support every sincere effort to control inflation.

CASTOR PLANT HAS POTENTIAL USE IN WARTIME. Science Service release, March 27: The castor plant, grown in this country for many years as a tall ornamental, has many possible values in wartime economy, W.L. Burlison and F.R. Fuelleman, University of Illinois, said at the eighth Annual Chemurgic Conference recently. Castor oil is a major commodity for a number of industries, notably paints and varnishes, textile finishing, special lubrications, and some plastics. Until now, it has been imported, principally from Brazil and India. Total imports rose from a depression slump of 77,049,000 pounds in 1935 to a pre-war peak of 237,789,000 in 1940.

There has not been much commercial cultivation of the castor bean plant in this country because of the hand labor required, but improved machinery may solve harvesting and oil-extraction problems. Experimental plantings of several thousand acres are planned for this year. About six varieties are regarded as promising. One thing being sought in new varieties now being bred is uniformity of ripening time.

THE AMERICAS AND THE WAR. Bulletin of the Pan American Union, April: To keep readers of the Bulletin informed of the various measures taken by the American republics since the United States was attacked by Japan on December 7, the Bulletin gives a list of the laws, decrees, acts, orders, and resolutions dealing with the war and its effects, and published in official gazettes or noted in other publications received at the Pan American Union. The list will be continued in future issues of the Bulletin.

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MAY USE GLASS TUBING IN MILK PLANTS. American Butter Review, March: Glass tubing is already under discussion as a substitute for tinned copper or stainless steel sanitary tubing now generally used in the operation of creameries and milk plants. As the shortage of needed metals for war production becomes more acute, so much greater will be the need for a substitute material for milk and cream pipe lines. Glass seems to have those properties best adapted to the purpose -- it is sanitary, non-flavor-imparting and may be easily cleaned.

One disadvantage of glass tubing is its perishability in respect to breakage. But American ingenuity and inventiveness will doubtless perfect a product which will withstand reasonable abuse in creameries and milk plants. Investigation is already being carried on to develop suitable sanitary fittings and connections to be used in conjunction with glass tubing. With the possible adoption of glass in dairy plant operations a new era in the careful handling and operation of equipment may be in the offing.

HIDE AND SKIN SUPPLIES FOR U.S. Hide and Leather and Shoes, March 28: The vice president of the Tanners Council said recently: "The problem (of the shoe industry) is not one of tanning capacity or shoe manufacturing capacity. Our domestic raw material resources must be supplemented by imports from Latin America, Africa, Asia and the Antipodes. Shipping therefore, represents the crux of the situation, and upon the availability of shipping tonnage depends the margin between domestic supplies and total supplies. From the outbreak of war in 1939 to Dec., 1941, a major portion of the exportable hide and skin surplus of the world has been coming to the United States. The hide and skin supplies of the raw material producing nations could not go to the continent of Europe and had no other export outlets than the United States and Great Britain. United States imports of hides and skins in 1941 reached extraordinary levels and made it possible to satisfy military as well as commercial orders. Ship space is now at a premium and the transport of men, fighting equipment and supplies takes precedence over everything else....."

LEMON GRASS INDUSTRY IN CALIFORNIA. Business Week, March 28: When the U. S. Sugar Corp. added lemon grass to its experimental plantings in the Florida Everglades some five years ago, it was almost worthless. Today, with almost 1,000 acres in production, it constitutes what importers say is the only commercial source of lemon grass oil in continental United States. The oil, used largely as a base for synthetic perfumes, for scented soaps and as citral (lemon flavoring), has jumped in price from 35¢ to \$3.00 per pound. The yield from the Everglades grass patch approximates a ton of oil per month. This essential oil for the perfumery makers came largely from India before the shipping shortage cut off that source. Eighteen months are required to bring in a first commercial harvest, which probably places lemon grass in the category of an agricultural gamble. End of the war and resumption of better transportation facilities for Indian duty-free imports would send the oil tumbling from its \$3 peg faster than it climbed.

The Everglades planting can supply only an estimated one-fifth to one-sixth of the domestic demand. The only other producing lemon grass planting in the Western Hemisphere is said by essential oil dealers to be in Guatemala,

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and this supply is subject to ship delivery. It is also being developed in Brazil, but not yet in substantial quantities.

SPECIAL TYPES OF LARD DEVELOPED FOR ARMY. National Provisioner, March 28: A new and important market for lard has opened to the meat packing industry since development of two types of lard designed especially to meet Army needs. The first type, designed for use in this country, contains a small percentage of hydrogenated lard flakes. The effect of the added flakes is to make a stiffer lard which will stand up under the difficult conditions frequently encountered on maneuvers and in Army messes. The plasticity of the lard after the addition of hydrogenated lard flakes is sufficiently high to meet the requirements normally encountered in Army use. The second type of Army lard is designed specifically for over-seas use. It is identical with the first type, with the exception that a small percentage of suitable anti-oxidant is added to give the keeping quality needed for long over-seas shipment and perhaps eventual use in tropical climates. All the lard for over-seas use is packed in hermetically sealed containers.

FARM EQUIPMENT INDUSTRY BACKS FFF PROGRAM. Implement & Tractor, March 28: Attainment of the Food for Freedom goals would be impossible were it not for a retail farm equipment industry standing by to keep the available equipment in operating condition through any conceivable emergency. The retail ranks are represented by twenty-eight thousand retail establishments, each of which is servicing the equipment of from two to three hundred farmers. Of these, eighteen thousand maintain service shops with specialized equipment for keeping power machines in service. Their organizations have never known, and have never asked for, a forty-hour week and their places and business and services will be available at any hour of the day or night during busy seasons. Parts and service must continue to flow freely to the farmer, and the existing channels should not be restricted. Wars have been lost through lack of food as well as lack of bullets.

SENTENCE FOR MILK ORDER VIOLATION. Boston report in Dairy Record, March 25: Representing what was believed here to be the country's first criminal prosecution under the federal milk marketing act, Thomas P. Kelley, president and treasurer of Shawsheen Dairy, Inc., of Andover, was sentenced last week to serve a year and a day after pleading guilty in Federal Court to an indictment charging him with making false and fraudulent reports to the U.S. Department of Agriculture. Kelley was charged with withdrawing \$115,000 from the federal milk equalization pool when he should have deposited \$22,000.

CRANBERRY SAUCE FROM DEHYDRATED FLAKES. Cooperative Digest, April: A cranberry canning company of South Hanson, Mass., has developed cranberry flakes, a dehydrated products sold in packages (because cans are scarce). The new product makes cranberry sauce when mixed with water and sugar and boiled one minute.

NEW WPB UNIT TO EXPEDITE SALVAGE OF SCRAP. Office for Emergency Management release (WPB 634): The Bureau of Industrial Conservation has set up a special projects salvage section, in an effort to speed up the movement of tremendous quantities of potential scrap metal tied up because of financial, legal, or other reasons.

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The Daily Digest

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Washington, D.C., April 10, 1942

BARTLETT HEADS UP AMA MARKETING REPORTS: Arthur C. Bartlett, has been appointed Chief of the Marketing Reports Division, Agricultural Marketing Administration. The division includes the personnel, and encompasses the informational activities, of the former information divisions of SMA, AMS and CEA. It also carries broad responsibility for all current marketing reports. Mr. Bartlett has had a wide experience as a writer and editor in newspaper and magazine fields. Following graduation from Bowdoin College in 1922, he served for seven years as a reporter and special feature writer on several newspapers. In 1928 he became associate editor of the American Magazine. After that he was managing editor of Country Home for several years. For the past five years he has been a writer-critic of governmental affairs for This Week, magazine supplement of many Sunday newspapers, and other publications. He is the author of more than a dozen books, mostly juveniles, dealing with rural life. Mr. Bartlett was born in Norway, Maine, and attended the local schools there before entering Bowdoin. Prior to coming to Washington, he lived with his wife and three children on a farm in Essex, Conn.

MANUFACTURE OF WORK CLOTHES INCREASES. Business Week, March 14: With textile shortages impending and with durable-goods lines offering little or no outlet for purchasing power, clothing manufacturers -- particularly those in the men's and women's coat and suit trade -- are having their innings. Probably the most fortunate segment of the clothing industry, aside from manufacturers assured of Army and Navy uniform orders, is companies specializing in work clothes. The Bureau of Home Economics designed a line of strictly functional work clothes for women. Cluett, Peabody reports that over 55 manufacturers now are turning out work clothing for women -- adaptations of the B.H.E. garments or original designs. The California Extension Service has followed the B.H.E.'s cue by designing a line of work clothes for women on the farm and in food plants. The designs were first shown Jan. 26 and are now being copied by West Coast manufacturers.

LOCKER ASSOCIATION COOPERATES IN NUTRITION PROGRAM. The National Frozen Food Locker Association has offered to assist the nutrition program of the Government in the following ways: 1.) By working with community and county committees on nutrition; 2.) By working with the Extension Services in various communities; 3.) Furnishing free storage space for surplus foods for school lunches.

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WAR DRAFTS THE COTTON MILLS. C.T. Murchison, president of Cotton Textile Institute, in Journal of Home Economics, April: Demand for American cotton goods will exceed the supply as long as the conflict lasts, no matter how successful mills may be in pushing output beyond current record-breaking levels. Cotton goods supplies available for civilian consumption will be determined almost entirely by the size and extent of direct and indirect requirements for the prosecution of the war. The pressure for supplies from consumer outlets undoubtedly will be greater and more continuous than any ever experienced by the industry. The situation in this respect is radically different from that of the last war. In the 1914-18 period, mills in Great Britain and France continued to process cotton in fairly sizable amounts, while Japan was an ally instead of an enemy.

From now on the entire cotton goods needs of the American people and probably a goodly share of the population of the United Nations must be supplied by our own mills after military and industrial necessities are met. Just how much goods will be available no one can say. All that can be said at this time is that supplies of consumer cottons may be smaller but there is little likelihood that the country will be forced to ration essential clothing supplies in the way they are being allocated in most countries today.

MILKWEED DOWN SUBSTITUTES FOR KAPOK. Science Service release, March 23: Kapok, tropical floss used in life-preservers, pillows and heat-insulating coverings, can have its war losses partly made good by substitution of milkweed down, Dr. Boris Berkman of Chicago told the Eighth Annual Chemurgic Conference. Kapok and milkweed floss are similar. Kapok is borne in seed-pods of tropical trees, milkweed in similar pods on tall temperate-zone herbs. The fibers of each are of approximately the same size, and both are hollow, with great flotation power provided by the inner air space. Kapok is provided to a certain extent from South America, but the principal pre-war sources in the East Indies are now cut off. In the meantime, the pre-war demands (U.S.A. 10,000 tons, the Netherlands 4,400 tons, Australia and New Zealand 2,000 tons) are increasing by leaps and bounds. In addition to the floss which would be the primary milkweed crop, Dr. Berkman pointed out there are seven byproducts which may make continued cultivation of the plant worth while even after the war.

CANADIAN INDUSTRY ON CAPACITY WAR BASIS. Canadian Textile Journal, March 27: Canadian industry is rapidly approaching a 100 percent war basis in which factories will produce only war materials and essential civilian goods, according to Ottawa reports. While war production is being stepped-up, there is marked reduction in the output of plants devoted to civilian requirements, both through government restrictions on production and to shortage of materials. Unofficially it is estimated that 80 percent of Canadian industry is engaged in war work. Official figures show that 650,000 of Canada's 3,000,000 wage-earners are engaged in direct war industries, with thousands more doing warwork in transportation, agriculture and essential services.

REPRINTS FROM "AGRICULTURAL STATISTICS" AVAILABLE. Separates or reprints from 1941 Agricultural Statistics have been issued. They are numbered from #51 to #59, corresponding to the nine chapters of the book. Department Workers who use these separates for answering letters can get copies while the supply lasts, from BAE Information, Washington.

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BAN RUBBER ON NEW TRACTORS. Implement & Tractor, March 28: The ban on manufacture of rubber-tired tractors, effective on or after May 1, will have considerable effect upon tractor design from now on and throughout the duration. Nearly every company is now building some models which have been designed for use with rubber tires exclusively. These are primarily the smaller units in each line, which have been designed for the farmers with smaller acreages and for use as supplementary tractors on larger farms. Under the tire rationing plans that now prevail, users of rubber-tired tractors are still able to obtain tires needed for replacements. How long this will be possible is problematical, but fortunately stocks of tractor tires now on hand seem adequate for the farmers' needs for some time to come.

EXPANSION OF DRIED EGG INDUSTRY. Article by USDA man, in Poultry Tribune, April: The rapidity with which the dried egg industry has grown may be realized when we compare the 16 plants that existed six months ago with approximately 60 now operating or in process of construction. From March 15 through January 31, the Surplus Marketing Administration bought more than 55,166,115 lbs. of dried eggs, primarily for Lend-Lease shipment. This yellow powder is packed in tongue and groove barrels lined with a double moisture resisting interliner and holding from 150 to 200 lbs. each.

While the growth of this industry has been phenomenal, it must be remembered that the present capacity is based on a full time yearly operation. These same plants operating on the normal pre-war basis of but 4 months a year and for fewer hours per day would reduce the total output substantially. The ability of this industry, based on its present physical status, to meet the return of normal conditions will depend on the development of new outlets and uses. The one big field, heretofore practically unexplored, but having definite possibilities, is the American home.

PACKAGING INDUSTRY SEEKS SUBSTITUTES. Scientific American, April: The packaging industry in general is hard at work following the general trend of re-design made necessary by the withdrawal from civilian use of many materials heretofore considered essential. Thus research is being directed toward plastic and paper tubes to replace the collapsible metal tubes used for toothpaste, shaving creams, and so on; the tin, lead, and aluminum formerly used will soon be out of this particular picture. Glass and wood are other possible alternates for use where the material to be packaged can be adapted to such containers. Beyond substitutions in this industry there is a definite trend toward simplification of containers of all sorts. Soon will be gone ornate wrappings on soap and similar products. Double paper coverings will be a thing of the past.

ASBESTOS-CEMENT BUILDING. Business Week, March 28: Anticipating a tighter situation in construction steel, a company of Allier, Penn., has developed a one-story, fire-resistant building which is made entirely of asbestos-cement products. Using tubular sections as structural members, corrugated sheathing for the roof, and sheets for walls, the asbestos buildings are prefabricated to facilitate rapid assembly into units, 16 ft. long by 12 ft. wide, on location. Thus a building of any size can be constructed by combining as many units as required.

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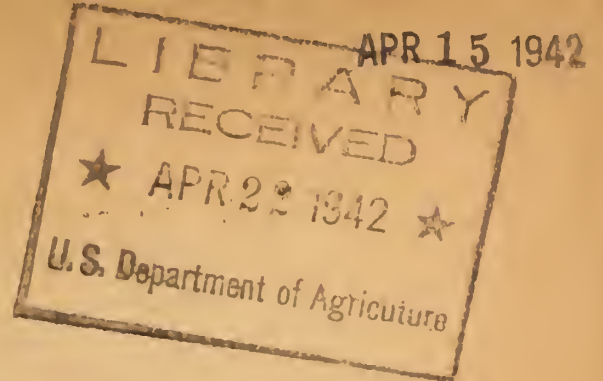
PRESCRIPTION FOR PRODUCTION. Under this title, Survey Graphic, March, says: A recent Gallup poll indicated that American production lost 23,000,000 man-days last December through illness. A breakdown of the rates of loss revealed a strange discrepancy. The rates for all industry in December was 23 lost man-days per thousand man-days of production. The rate for defense industries was only 14 per thousand. The sources of illness holding up defense production stem from the home and the community, from weaknesses in programs of medical care, health education, nutrition, from lack of knowledge or concern on the part of the worker, whose resistance to illness depends largely on good health habits — sleep, exercise, food.

The speed of a machine depends on the quality of the fuel used; the speed of a factory depends on the diet of the men on the assembly line. Fortunately "high octane gas" for the workers is inexpensive and abundant, for it is derived from five basic foods: milk, whole wheat or soy bean bread, meat or eggs (liver occasionally, at least seven eggs a week), leafy vegetables and raw fruit; to these he can add such other foods as he likes.

Good results have been reported from experiments which have brought natural foods to the men in industrial plants. In England many workers are now receiving "Oslo meals," so-called because they were first provided to industrial workers in the Norwegian capital. These between-meal snacks consisting of cheese, whole meal bread, a raw carrot, milk, half an orange, half an apple are served at rest periods in the forenoon and afternoon. In Springfield, Mass., a method of bringing food to the defense worker in areas where eating facilities are scarce or to workers who are on night shifts (when restaurants and cafeterias are closed) has grown out of a demonstration sponsored as part of a local newspaper's "food for defense" campaign. Red Cross volunteer canteen workers have been appearing at an armory at four o'clock in the morning to serve food to workers engaged in turning out guns.

PERMIT DEXTROSE, CORN SYRUP IN CERTAIN CANNED FRUITS. Editorial in Fruit Products Journal, March: Federal Security Administrator McNutt has amended definitions and standards for canned peaches, pears, apricots and cherries to permit the use of dextrose or corn syrup, without label declaration. Dextrose can be employed to replace cane or beet sugar to the extent of 33-1/3%. Corn syrup or dry basis can be used to replace 25% of cane or beet sugar. A mixture of cane or beet sugar, dextrose and corn syrup can be used providing that they are in such proportion that the weight of the dextrose multiplied by three equals the weight of the cane or beet sugar.

HORSES IN ENGLAND. North American Veterinarian, April: A writer in the Veterinary Record (London) states that the need for conserving petrol (gasoline) has led to an unprecedented demand for the horse in nearly every country in the world, and in connection with the situation in Great Britain the Leader was quoted as follows: Owing to increased motor taxation and reduction of petrol supplies, the market value of horses has in some cases gone up as much as 100 percent.



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U.S. - CANADIAN COOPERATIVE FARM PROGRAM. Washington report in New York Herald Tribune, April 11: The United States and Canadian Governments announced yesterday conclusion of joint arrangements whereby more oil-producing crops such as soybeans would be produced in the United States and more feed crops would be produced in Canada to meet wartime needs to supply the United Nations with fats and oils. In addition, the U.S. and Canada are to facilitate the movement of agricultural machinery and operating crews across the border. The agreement was approved by President Roosevelt and Premier W. L. Mackenzie King. Arrangements provide for more effective utilization of the land and crops grown in the two countries, and will facilitate movement of seasonal labor and used farm machinery across the border.

QUESTIONNAIRE ON FAMILY PROBLEMS. Apr. Jrn. of Home Economics. The American Home Economics Association has distributed a questionnaire on family problems to homemakers throughout the USA. It has gone to rural and urban areas, families in high, medium, and low income groups, to those who belong to organizations, and to those who have no such affiliations. At the annual convention of the Association in Boston next June, a report on the questionnaires will provide a sound foundation upon which to construct next year's Association program.

N.Y. STATE FRUIT TESTING PROGRAM. Successful Farming, March: Membership in the New York State Fruit Testing Co-operative Association, Inc., entitles a member to one tree or 12 berry plants free each year. These trees or plants may be selected from advance lists of newly developed varieties. The annual membership dues are one dollar. Ordinarily, for the payment of a reasonable price, considerable numbers of various trees and plants may be obtained for testing. No state or Federal funds have been appropriated for the association. New varieties are made available to members when they are considered worthy of trial by the experiment station. The hardiness, adaptability, quality, and marketability of such fruits are yet to be proved. This gives experimenters opportunities to test the new varieties under different conditions.

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FOOD FOR A VITAL AMERICA. Under this title, article in Survey Graphic, March, says: Germany was the country which paid the greatest attention to food and nutrition in the years preceding the war. Like all German propaganda, the slogan "guns instead of butter" was deliberately misleading. In her war preparations Germany made full use of the modern knowledge of nutrition. Milk became scarce because none was available until every child and every pregnant woman was supplied.

Shall we in America fall into the error of neglecting food and nutrition at a time when war seeks out every weakness among our people? Let us not sacrifice food, housing, and medical care essential for the health and morale of our people. Victory demands the most strenuous efforts of the armed forces, the producers of food, munitions, and shipping, and behind them the whole force of a strong united people.

TRANSPORTATION IN NATIONAL DEFENSE. Business Week, February 28: The Office of Defense Transportation, created two months ago with Interstate Commerce Commissioner Joseph B. Eastman as chairman, is hard at work keeping things rolling. Organization of key personnel is nearly completed, the staff now numbering about 525. Other governmental departments are helping. Last week, for instance, Attorney General Francis Biddle assured Eastman that cooperation or joint efforts among carriers involving services, routing, diversions, and embargoes would not be considered violations of the anti-trust laws, if done under public authority during the present emergency.

To increase railroad efficiency, some consolidation of terminal facilities will be recommended. Moreover, traffic on railroads whose lines nearly parallel will be readjusted so that one line can carry passengers while the other be devoted to freight. The order which created the ODT granted to it certain powers normally vested in the President during time of war: to establish priorities on passenger travel, negotiate rates, and recommend legislation.

VITAMIN A AND D SHORTAGES IN POULTRY FEEDING. Two workers of the Illinois College of Agriculture, in North American Veterinarian, April: Since the outbreak of the European War, supplies of cod liver oil and other fish-liver oils used to furnish vitamins A and D to animals and humans have been markedly reduced. This curtailment presents a problem to the animal husbandman who had, during the past few years, grown to depend on these oils to insure an optimum supply of vitamins A and D in the rations of his animals. The problem is perhaps most acute with the poultryman, for chickens appear to require relatively high amounts of these vitamins; moreover, they give a different response to such sources of vitamin D as irradiated yeast than do other farm animals.

Vitamin A can best be supplied to poultry during the emergency by feeding as high a percentage of yellow corn as is reasonable, and by feeding high-quality alfalfa leaf meal, young, green, leafy crops and grasses, or through the use of a well-prepared commercial feed. Vitamin-D requirements can be met by taking advantage of all available sunlight, and by adding some source such as irradiated animal sterol to the diet.

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MECHANICAL EGG COOLER. San Diego Poultry Journal, March 25: Construction of a mechanical-refrigeration egg cooler large enough to handle the production of a 2,000-hen flock is being planned at the agricultural engineering division of the California College of Agriculture. The cooling unit will be tested for a year as part of a project aimed at improving the quality of eggs held on poultry ranches for several days before shipping. Tests of a model cooler have yielded enough information to warrant construction of the full-sized mechanical cooler. Experiments have shown that the rate at which eggs are cooled has little effect on their quality, but the temperature at which they are held is of vital importance. The 2,000-hen unit is probably the most practical size for a mechanical cooler.

HIGHER ANALYSIS FERTILIZERS. News for Farmer Cooperatives, March: If 500 bags of high-analysis fertilizer provide for the farmer the same amount of plant food that is contained in 800 bags of fertilizer of average plant food analysis, the use of the higher analysis product means a saving of almost 40 percent in transportation, handling, and bags. These figures represent the difference between the average fertilizer used by all farmers in the territory of the Eastern States Farmers' Exchange, and the average fertilizer purchased through the cooperative. They illustrate the possibilities in conserving manufacturing facilities, bagging, and shipping by the high-analysis program of cutting down on the amount of "carrier" used to deliver plant food.

The most practical move which will contribute most in economy of fertilizer usage now is the replacement of mixtures of less than 20 units of plant nutrients with mixtures containing 20 to 25 units. Twenty- and 25-unit mixtures can be produced with the materials available, and if they displace mixtures of 15 to 18 units they will decrease the farmers' fertilizer bill by millions of dollars. Such a change will also save packages and transportation as well as farm labor. That this saving is entirely practicable is indicated by a survey of plant food consumption in the United States in the year ended June 30, 1939, published by the National Fertilizer Association, which shows that among the 12 leading fertilizer grades only three are as high as 20 units.

SHOE INDUSTRY DEVELOPS NEW MATERIALS. Hide and Leather and Shoes, April 4: Among new developments in the field of wartime employment of materials and methods in the shoe industry are the following: Plastic substitutes for metal in shoe eyelets; nylon substitute for natural leather; substitution of steel for brass in shoe eyelets; introduction of a new shoe for women working in factories where static electricity is a safety hazard (shoe is designed to eliminate body static): new "shock absorbing heel" manufactured from materials having no priority restrictions.

COSBERG 600, NEW LETTUCE VARIETY. Poultry Tribune, April: A new lettuce variety, Cosberg 600, matures ten days earlier than the original Cosberg (cross between Cos and Iceberg) and forms heads even under adverse conditions which cause failure in other varieties. It will probably mean a good salad crop for home gardeners during the difficult summer months. This lettuce received honorable mention in the All-American vegetable trials last year, and will be in most seed catalogs this spring.

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MINIMUM WEIGHTS ON LESS-THAN-CARLOAD FREIGHT. National Provisioner, April 4: To release box cars and other railroad equipment for the movement of war materials, Joseph B. Eastman, Director of Defense Transportation, has established minimum weight limits, beginning May 1, on loadings of cars carrying less-than-carload civilian freight. At the same time, he directed rail carriers to submit to the Office of Defense Transportation plans for individual or joint action to curb wasteful use of freight cars in handling merchandise.

In the first general order issued since creation of the ODT last December, Mr. Eastman fixed a minimum weight limit of six tons, effective May 1, on loadings of cars containing less-than-carload freight, commonly known as merchandise freight. The order raises the minimum allowable weight to eight tons per car on July 1, and to ten tons per car on and after September 1.

WALLACE ON MOVIE, THE LAND. Vice President Wallace, in Wallaces' Farmer, April 4: The Government moving picture, The Land, was made by the AAA. Russell Lord wrote the script. The voice in the sound track is that of the great documentary movie-maker, Robert Flaherty, who photographed and directed the picture for AAA. Flaherty has told us the story of a land which does not forgive misuse, either by machines or by men. It is a hard story, but true. We are fighting today for the people of America and the soil of America. All of the material wealth of the world — all of the wealth in America — comes out of the earth. As much as we have abused our soil, there is more power in it today than there has been in any land at any time.

UTAH COOPERATIVE SEED IMPROVEMENT PLAN. Utah Farmer, March 25: The Director of the Utah Experiment Station recently signed an agreement with the Utah Crop Improvement Association, to speed up the production and use of pure seed in Utah. The Station produces foundation seed of varieties of field crops eligible for certification. This seed is then sold to the Association at a price mutually agreed upon. The Association then sells the seed to a few of its members in each county interested to be grown under contract for certification. These selected growers sell their crop of certified seed to other certified growers to be grown on a larger scale. This seed is then sold to farmers for commercial plantings. The plan was in operation for the first time in 1941.

PROCESS IMPROVES DOMESTIC RED SQUILL. Science Service release, March 16: Red squill, one of the most effective rat poisons, may be obtained from domestic sources, through a "fortifying" process developed by Glen Crabtree, biologist at Denver, Colorado, Wildlife Research Laboratory. The drug has been imported from the Mediterranean region, a source now cut off. Red squill has been grown in this country, but the U.S. grown bulbs have never been sufficiently toxic to kill rats. Mr. Crabtree's process consists in extracting the poisonous principle from pulverized U.S. bulbs with alcohol, and adding it to other dried squill to raise its level of toxicity. Larger supplies of effective rat poison are needed, now that protection of Army cantonments has been added to the already existing danger of these pests, and the \$189,000,000 worth of property damage yearly for which they are held responsible.

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ARMY READY-CUT MEAT MAY INFLUENCE CIVILIAN MARKETS. Business Week, March 28: Meat packers are wondering to what extent their production of consumer meats will be influenced by a method that already dominates their output of fresh meat for military use. Army camp meat cutters have in recent months been learning to cut and bone carcasses into convenient-size cuts for roasting, frying, boiling, stewing, or meat loaf as needed for each mess. Ever-increasing fractions of total volume of military beef are now being boned at the packing plants and prepared so that the meat is ready for cooking. The more desirable sections are cut up into pieces approximating 10 lb. for roasting or frying. Other appropriate portions are cut into smaller pieces ready for stewing or boiling. The remainder of the edible portions is ground for use as meat loaf or patties. The proportion of these types of ultimate product runs 50%, 25%, and 25%.

The method saves in the cost of shipping and handling, because only the actual meat must be delivered. By Army figures, boned frozen meat requires only 60% of the space required for shipping the dressed carcasses. Bones and fat are held at the packing plant for most economical utilization. An offset is the cost of cutting, boning, packaging, freezing, and of storing frozen.

PLIOFILM WRAPPERS FOR FRUITS AND VEGETABLES. The Florida Experiment Station, in Florida Grower, April, reports that of a large number of fruit and vegetable wrappers tested, pliofilm (a rubber hydrochloride product) proved the best. Many wrapping materials were found to retain moisture, but did not allow escape of gases (mostly carbon dioxide) given off by vegetables and fruits. Plioilm, however, allowed passage of carbon dioxide at a rate 20 times faster than that of ordinary air.

The report continues: No other wrapping material has been found that has this property and is at the same time so efficient in retaining moisture. Plioilm also is transparent, tasteless, odorless, durable, and is not attacked by insects, molds, or vermin. It is thermoplastic, which allows it to be heat-sealed and permits a new type of packaging known as "stretch-wrapping." When heated, plioilm assumes the shape of the article being wrapped, permitting wrapping of regular or irregular products without seams or folds. A bulletin on the use of plioilm as a fruit and vegetable wrapper can be obtained from the Florida Experiment Station, Gainesville.

April 14, 1942

WAR BOARD. A Memorandum from Fred S. Wallace, special war board assistant to the Secretary, to state USDA war board members says in part: Recently agencies of the Department of Agriculture were informed that the War Department had agreed to a program which would permit production of farm commodities on "buffer" strips around war plants or plant sites acquired by the Army. A considerable number of inquiries have been received from farmers not only asking why they cannot live on the buffer strips and continue to operate the land, but suggesting a wide range of counter proposals for consideration by the War Department.....No arrangement can be made to permit farmers to live on buffer strips surrounding War plants or plant sites. As to the leasing of land on such buffer strips for farm production, this question can be determined only by the commanding officer at the plant. Actual leasing arrangement cannot be made until the War Department is certain that all or part of a particular buffer strip will not be needed for storage or for traffic during the construction period.

EGGS FOR ENGLAND. Business Week, April 4: Eighteen cases of shell eggs equal, after dehydration, one barrel of egg powder. This month government buyers placed orders for more than 6,000,000 lb. of egg powder (which will require 228,000,000 eggs) for lend-lease shipments because, compared to shell eggs, it is an ideal voyager, being compact and practically immune to the hazards of breakage or spoilage. First step in processing of powdered eggs is the mixing together of whites and yolks. (In powdered egg-whites; an important lend-lease item, this step is omitted.) This mixture is then sprayed through atomizing nozzles into a 400 degree F. drying compartment. The dehydrated mixture is then sifted and packed.

AMERICA'S OWN REFUGEES. Review of book by this title, in March Land Policy Review (BAE): The bulk of this book deals with migrants in agriculture. The author points out forcefully that the present situation of migrants is a travesty on the principles of democracy, that democracy's ability to survive in a fight abroad depends on morale and whole-hearted support at home, that many migrants today could hardly have any stake in the welfare of society, and therefore that to improve their lot is to strike a hard blow for victory. He is concerned with problems which are long range in effect, and it must be granted that these problems will still need a great deal of solving when the war is won.

ARTIFICIAL LIGHTS FOR EARLIER TURKEY EGGS. Turkey World, February: Some turkey growers have complained that use of artificial lights decrease fertility and hatchability. A recent experiment by Pennsylvania State College indicated that toms should have lights about three weeks before the hens in order to insure early fertility. In recent work at Oklahoma A. & M. morning lights begun early in December brought Bronze turkey pullets into production in about one month, or early in January. These turkeys reached their highest rate of production (79 percent) early in February. All-night lights begun the same time on similar Bronze pullets brought the turkeys into production by the last of December, in about three weeks. The peak of production (78 percent) was reached late in January. Comparable Bronze pullets without lights began to lay in January, February, and March, very irregular compared to the lighted pens. The rate of lay increased slowly, reaching 48 percent late in March. In the two years of work completed at present the fertility was about the same in the three pens.

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DRY CALF FEED SAVES MILK FOR DEFENSE. Successful Farming, March: Dry feeds will enable cows and dairymen alike to release a greater volume of milk. Dry feeding apparently rates tops with the farmer. One commercial feed company reports selling nine times as much dry preparation as gruel feeds. Trials at one commercial feed company's experiment farm reveal that calves raised on the dry-feeding plan are larger at four months than the Eckles standard for whole-milk-fed calves, with Guernseys and Holsteins averaging 200 to 275 pounds in weight, respectively. Checkups on farms adhering closely to the company's plan have led those in charge to state that any good farmer can get 180-pound Jerseys, 225-pound Ayrshires, and 250-pound Brown Swiss in the same length of time. Those conducting the observations admit that the calves look thinner and rougher in the first two months and show a slightly lower rate of gain than calves fed plenty of whole milk. They contend, however, that by the end of four months the calves have caught up in weight, with more of this poundage in frame and muscle.

IOWA STATE COLLEGE PLANS YEAR'S FOOD LOCKER-SUPPLY. Ice and Refrigeration, April: Iowa State College has outlined plans for a year's food supply whereby through the use of the refrigerated storage locker the farm wife can store away more good home-grown food, buy less from commercial sources and leave more of the latter for the fighting men and industrial workers in the city. A fruit specialist prepared information on how to handle 23 different kinds of fruits and vegetables. For 13 of the 23 foods he lists freezing as the first choice method of storing: strawberries, peaches, raspberries, grapes, cherries, rhubarb, squash, lima beans, peas, sweet corn, snap beans, spinach and asparagus. Ordinary cold storage was given first choice and freezing second choice for five of the other foods: carrots, apples, beets, turnips and parsnips. For cabbage, common storage ranked first, ordinary cold storage second and freezing third. Only for four of the foods: potatoes, sweet potatoes, tomatoes and cucumbers, was freezing not recommended at all. A home economist outlined a plan for a complete year's food supply for various sized families and a meat specialist outlined a year's supply of pork, beef, lamb, veal and fowl. Out of 720 lbs. of meat, for example, he planned to have 530 lbs. frozen and 190 lbs. cured.

WOMEN WANT SHOES FOR WORK WEAR. Hide and Leather and Shoes, March 21: The advertising manager of a shoe company of Syracuse, New York, recently told a class in advertising at Syracuse University that "women engaged in war work are demanding a sturdy type of shoe and such shoes have become so popular that the Syracuse factory cannot make enough to satisfy requirements." He said that about four years ago the company invented and introduced "loafers," and that "so many women asked for these shoes, the company began the manufacture of similar shoes designed for women, built exactly as the men's shoes are constructed.

CENTRAL VALLEY PROJECT IN CALIFORNIA. Scientific American, April: The Central Valley Project not only will insure water for California's lush agricultural production. It also will restore thousands of acres lost in recent years to production because of water scarcity, and guarantee water to such defense industries and military establishments as may spring up in this region. All together, it represents a mighty effort at conservation which bids fair to yield tremendous returns in many fields.

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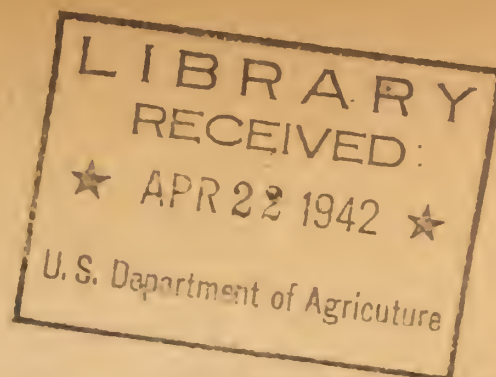
ICC APPROVES TRUCKING CONSOLIDATION. Business Week, March 28: War's need for transporting as much freight as possible as swiftly as possible constituted a large factor, perhaps the determining one, in approval by the Interstate Commerce Commission of a merger of eight large motor transportation companies into Associated Transport, Inc. The new company is to be the largest single motor carrier in the United States. The consolidation may set a pattern for other trucking consolidations throughout the country. Advantages are many. More efficiency and greater utilization of equipment would be permitted, with some reduction in fuel consumption, tires, and repair parts. Extension throughout larger systems of scientific maintenance and safety programs would add to the average life of equipment.

BRITISH DOUBLE VITAMIN D ADDED TO MARGARINE. London correspondence in the A.M.A. Journal, April 4: It is announced that the amount of vitamin D added to margarine is to be doubled and that in future an ounce will contain more of the vitamin than an average egg. Vitamin D is specially important for children because of its part in the forming of bones and teeth. The other principal sources of vitamin D are eggs and codliver oil. Increasing advantage is being taken of the free distribution of the oil.

TRADE SIMPLIFICATION IN CANADA. Canadian Textile Journal, March 27: Organization of the Division of Simplified Practice of the Wartime Prices and Trade Board is now practically completed, according to reports from Ottawa. The new Division will endeavour to bring about economies in distribution and marketing of civilian goods. The Division is regarded as a highly important branch of the Wartime Prices and Trade Board, in view of the demand for economical production and distribution to provide adequate supplies of goods for civilian consumption.

WHEAT RESISTANT BUTTER DEVELOPED BY ARMY. Science Service release, March 28: A new "butter" developed by the Army Quartermaster Corps can be shipped without refrigeration and will resist temperatures up to 110 degrees Fahrenheit. Ten thousand pounds have already been shipped to U.S. troops overseas. Named "Carter spread" after its inventor, Lt. Col. Robert F. Carter of the Quartermaster Corps, the new butter consists of dairy butter fortified with hydrogenated cotton seed oil flakes to raise its melting point. Quartermaster Corps officers say it still tastes like butter.

CO-OP OFFERS SAWMILL SERVICE ON FARMS. News for Farmer Cooperatives, March: The Geauga County Farm Bureau Cooperative Association of Burton, Ohio, inaugurated a new service recently by offering farmers and woodlot owners a sawmill service at their own farms. Geauga County has a large percentage of wooded land and has long been famous for its maple industry. The farmer with two or three good logs is unable to sell them advantageously, so the plan involves the building of inventories of different species and grades. Through accumulating a considerable volume of logs over the area served, large buyers are attracted and greater returns are expected to be realized.



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Washington, D.C., April 15, 1942

U.S.D.A. GEARED TO NATIONAL DEFENSE. Medical Record, April 1:

Whereas the Department of Agriculture was formerly a research, educational, custodial, and regulatory institution, it is now much more than that. It is content no longer merely to find and disseminate information. Working directly in democratic cooperation with the farmers of the Nation, it assists in the practical job of putting science to work for the agricultural industry and the American public. It is the central board of strategy for the industry of agriculture, and its staff work is on a national basis. The Department has rightfully been called the greatest planning agency in the world, but the lowliest farmer has a part in the formulation of its programs. Today it is fully geared for the job of national defense. It is organized to do easily those jobs for which we had hastily to improvise machinery in the last World War. Crop adjustments upward or downward can be made as occasion requires. Agriculture is better prepared for war or for peace than any other industry.

CIVIL SERVICE EXAMINATION. No. 221, Assembled, Junior Professional Assistant, \$2,000. Eligibles are particularly desired in the fields of economics, home economics, public administration, business analysis, library science, mathematics. Applications to be accepted until April 27, but if excessive number is received, only number sufficient to meet needs of service will be examined in order of receipt.

ASKS SEEDS FOR RUSSIA. Southern Florist, April 10: Russian War Relief is asking for bulk contributions of seeds from organizations of farmers and seed distributors, and money from the general public for purchase of seeds. Seed varieties especially needed are of beets, cabbage, carrots, lettuce, onions, radishes, turnips, tomatoes, parsnips, collards, Swiss chard and squash. Bulk contributions of seeds should be sent to the Russian War Relief warehouse, 22 W. 21st street, New York. Money contributions marked for the "Plant the Scorched Earth campaign" may be sent to the relief agency's headquarters at 535 Fifth avenue, New York, or to any branch office in the country.

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PORTABLE ORCHARD PRUNING BURNER. Better Fruit, March: Shop mechanics of a large fruit ranch in California have worked out a portable orchard prunings burner that is a big time and labor saver in handling the annual brush problem that follows pruning of the plum, apricot, peach and other trees in their 800-acre orchards in the San Joaquin Valley of California. There have been many approaches to this problem including disking in of the brush by heavy weights on heavy duty disk harrows, piling and burning in the orchard, sheet metal bodies on wagon or truck bodies, etc. The burner protects men forking the brush into the burner from both flame and smoke which are carried up the chimney-like superstructure above the trees. Two men can easily cover 20 acres in a day. Ashes drop through onto the cover crop to be instantly extinguished and prevent firing of the orchard while saving the fertilizing qualities of ashes without leaving any large-sized sticks or chunks to bother later cultivation.

COLOMBIAN WHEAT IMPORT QUOTA. Foreign Commerce Weekly, March 21: The maximum quota for imports of wheat into Colombia has been placed at 16,000,000 kilograms for 1942. Imports will be authorized solely for mills located in regions producing little or no national wheat, and quotas assigned to importers by the Office of Exchange and Export Control will be based on last year's allocations.

TOBACCO BY-PRODUCTS DEVELOPED. Business Week, February 28: Outstanding among tobacco research projects is that of the Kentucky Experiment Station. In addition to ways of making fiberboard, other announced leaf-tobacco products include wrapping paper, carton board, packing and insulating materials, varnish, soap, nicotinic acid, and insecticides. Wartime inroads into many sources of supply are expected to add especial significance to such investigations.

Looking far ahead, the Kentucky researchers foresee a possibility that "ultimately the byproducts obtained from low-grade tobacco will assume an importance equal to the state's production of prize burley." The researchers also see an increasing wartime demand for the insecticides that they have developed. Two of their tobacco-leaf insecticides have proved very effective and one is now reported in use on a national scale. Still other possibilities are noted. Furfural, normally extracted from oat hulls and used in solvents and plastic manufacture, has been found in tobacco. The leaf contains malic, citric, and oxalic acids, and fats, resins, and waxes may also be obtained from it. By way of special appeal to farmers, a recent report held hope that fertilizers and livestock feed might be developed, along with waxes and a drying oil substitute for linseed oil.

FORM NATIONAL FARMERS CO-OP PROCESSING COUNCIL. Market Growers Journal, April 1: Cooperative canning plants, of which there are nearly 120 in the United States, are completing organizations of the National Farmers' Cooperative Processing Council. Regional and local canneries will be eligible for membership in the NFCPC, which intends to engage in legislative work, research, development of uniform industry contracts and practices, development of trade names and promotional campaigns, and development of uniform cost accounting systems and processing methods.

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WAR MAY CHANGE FOOD TASTES. Butchers Advocate, April 1: Though the war is only about four months old, already some large food manufacturers are wondering what food tastes will be like when the conflict is over. The Army is doing a good job of feeding millions of men — feeding them with the kind of food most of them will prefer when peace comes around. Too, migratory workers moving from one end of the country to the other to take defense jobs, bring certain food tastes with them and cultivate others. The great changes now occurring are the first rumblings of the food revolution; rationing and packaging will accelerate the pace of these changes.

SOUND FILMS FOR HOME ECONOMICS. Journal of Home Economics, April: Widely used this year by home economists are the U.S. Department of Agriculture's nutrition films "For Health and Happiness" and "Food Makes a Difference"; the Farm Security Administration's films "The Plough That Broke the Plain" and "The River". The films "And So They Live" and "The Children Must Learn," produced by New York University with a grant from the Sloan Foundation, are being successfully used to make realistic the urgent need for educational programs to improve the dietary practices of families as well as to dramatize how far removed from life problems the programs of schools tend to be. These films show the home and school life of a typical rural community, where the soil has been depleted and the food supply is inadequate.

GEE'S BEND, ALABAMA, NEGRO SETTLEMENT. Survey Graphic, March: Gee's Bend, an isolated settlement of Negroes in southern Alabama, is a test tube sample of how little it takes to improve the health of a community. Descendants of slaves who remained on the large plantation after the white landowners had moved away, these families depended on one-crop cotton, ate meat, meal and molasses if they had them, lived in dilapidated cabins. In 1931 their shaky fortunes hit bottom.

Some years later the government's rural rehabilitation program came to the rescue with loans and expert advice on farming and diet. Now the people grow fruits and vegetables for their own use, canning the surplus for winter eating. They are building snug frame houses with screens, and sanitary privies. Families pool the funds to pay two county doctors who hold a weekly clinic at the community health center, where a full time nurse is in charge. Malaria and Pellagra, Gee's Bend afflictions, are disappearing.

PEAT SUBSTITUTES FOR LITTERS. Poultry Tribune, April: With the virtual cessation of peat imports, various domestic litters have gained in favor, including domestic peat, sugar cane fibre and cottonseed hulls. Cottonseed hulls specially treated for use as litter have enjoyed especially rapid growth in popularity because of their porous texture which makes them highly absorbent, freedom from molds and dust, and the ease with which they are handled. The special treatment also is said to make them resistant to germ development and relatively resistant to fire. Oat hulls, ground corn cobs and shavings are other products being used for litter.

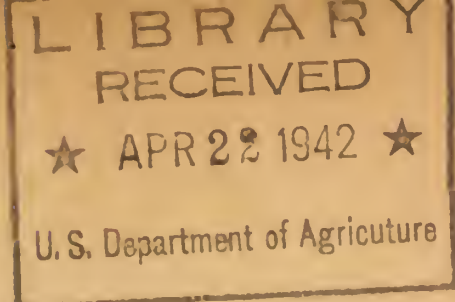
April 15, 1942

WAR CAUSES SHORTAGE IN CHEMICALS FOR INSECTICIDES. Science Service release, March 24: Munitions for warfare against insects and plant diseases are scarce because of the war, it was reported at the Eighth Annual Chemurgic Conference. About half of the arsenic used in this country comes in normal times from abroad, mainly Sweden, Belgium and Japan. At the same time, other industries are demanding larger shares of the arsenic still available. Great quantities are needed in manufacture of khaki cloth, blankets, and glassmaking, and for chemical weed killers, to replace chlorates now absorbed by powder mills. Rotenone used to come largely from the East Indies. South American rotenone, which used to supply about 40% of the nation's normal requirements, can be stepped up to perhaps 60%, but not more. The principal source of pyrethrum used to be Japan, but the entire requirement for 1942 can be supplied from Kenya, if enough shipping space can be made available. Arsenic and rotenone are being saved largely through careful distribution of available supplies. Non-essentials, like grub-proofing of lawns and golf greens and protection of ornamentals, are being put on short rations, and supplies on hand are being directed to combating pests and diseases attacking principal food and fiber crops.

BLACK LIGHT HELPS DETECT POTATO RING ROT. Electricity on the Farm, April: Partial identification of ring rot in potatoes is made possible by the new black light units. With the development of the new projector-type mercury arc flood light, it is possible to concentrate the ultraviolet rays on seed potatoes, thus identifying the diseased tubers by the greenish glow produced by the infection. Further examination of the cut tuber will reveal a fluorescence of the infected area. The detective work of the ultraviolet (black light) at this stage prevents the spread of disease that might otherwise be transferred to healthy tubers during the cutting and planting operation.

EVERY-OTHER-DAY MILK DELIVERY. New Jersey Farm and Garden, April: Every-other-day milk delivery is meeting with consumer approval. Launched first in Hunterdon County by the Department of Agriculture, in cooperation with the dealers of Hunterdon County, the idea has spread to Somerset and Warren Counties with other districts being organized. The consumer reception of every-other-day delivery is well illustrated in the experience of Decker & Son, Highstown milk dealer. Out of a total of more than 4,000 quarts, served by twelve wagons in the Highstown-Trenton area, Decker lost less than six customers and since that time a part of these have been recovered. Decker reports that with every-other-day delivery, which requires consumers to accept a larger quantity of milk, he is planning on purchasing a square-base milk bottle. This new bottle will enable the consumer to store the extra bottles on the lower shelves of the refrigerator or even to stack them two-deep.

WAX DEFEATHERS POULTRY. Coastal Cattleman, April: The oil industry has perfected a "defeathering wax" and two men, using the wax, recently picked 500 chickens in an hour. The birds come from the killing room on an overhead conveyor, pass through a water bath of 128 degrees, and then through the wax bath, which is held at 130 degrees. After the wax has been solidified by a cold water bath it is peeled off, feathers, down, and all. Ninety-five percent of the wax can be used again.



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WET WEATHER DELAYS FARM WORK IN LARGE AREAS. Weekly Weather and Crop Bulletin, April 15: While recent weather has been favorable from the Great Plains westward and in a considerable southeastern area, too much rain in the central valleys kept soil too wet for working. Little field work was possible in the Northeast, and Ohio and Central and Southern Mississippi Valleys, while low temperatures retarded growth of vegetation, with some local freeze damage to early fruit. The heavy rains extended northward to the lower Lake region, Missouri, and southeastern Kansas; to the northward conditions were favorable for farming, especially in the Great Plains and upper Mississippi Valley. In the Southeast, as far north as the Potomac River, farm work made good progress. Fair, warm weather is needed badly in most interior areas. Most of the western half of the country with warm sunny weather, had a favorable week. Rains occurred in Texas where dry weather had prevailed for a long time, and additional moisture in California will be helpful to pastures, truck, and ranges. Soil moisture is now ample west of the Mississippi River.

In the eastern half of the Winter Wheat Belt, while growth continued fair to good, dry, warm weather is needed. Heavy lowland soils are waterlogged. In the Mississippi Valley growth was slow because of low temperatures. Good rains in most of Texas benefited wheat greatly. Because of wet soil, but little corn planting was accomplished except in the South Atlantic area and southern Great Plains. In south-central sections heavy rains kept the soil saturated. In the Southwest much planting has been accomplished as far north as Oklahoma and some fields are up to good stands. In the Cotton Belt, rains in the west, especially Texas, were beneficial, but in the central belt the ground was too wet and little cotton was planted. In the southeastern belt, seasonable temperatures, with rains in most sections, were favorable, and planting made satisfactory progress.

SCHOOL LUNCHES AND EDUCATION. Under this title, the U.S. Office of Education has issued a bulletin (Vocational Division Leaflet 7) prepared by the Cooperating Committee on School Lunches. A foreword by the Commissioner of Education says: "Increased recognition of the importance of nutrition education to the health of the Nation again has brought to the school administrator the problem of how the school can take its share of responsibility in such a program. The school lunch provides one important means of improving the health of school children and youth....."

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TOWARD FARM SECURITY. Review of FSA publication by this title, in March Land Policy Review (BAE): Planned primarily for new FSA employees but valuable to other members of the Department of Agriculture and to all those who desire a clear, concise picture of the workings of this agency, this volume was prepared under the direction of the Farm Security Administration Personnel Training Committee. It gives a general description of the major causes of rural poverty and of the part FSA plays in helping poverty-stricken farmers find permanent security.

ARMY FINDS TIN SUBSTITUTES FOR FOOD CONTAINERS. Business Week, April 4: The Army Quartermaster Corps has for some time been experimenting with electroplated tin cans, bonderized cans, fiber cans, etc., to replace time-honored dipped-tin containers for packing foods that must withstand all kinds of climatic conditions. Upshot is that dry foodstuffs like cocoa, hard candy, gelatine pudding powder, baking powder, etc., will be packed in composite fiber containers with metal ends, similar to those used for 75-mm. shells. If dehydrated foods require a "gas pack" to maintain their flavor, they will go into 5-gallon tin containers; if they require no gas, they will go into fiber. QMC used to insist on wooden boxes for carrying canned foods, uniforms, what-have-you. Now the suppliers have a choice of nailed wooden boxes, wire-bound wooden boxes, or fiber containers for hard goods.

PORTABLE OZONE UNIT PURIFIES WATER. Scientific American, April: A completely automatic, self-contained water purification plant that burns bacteria out of water has been developed for use in army camps and by troops on maneuvers, but has industrial and municipal applications as well. The unit has a rated capacity up to 9,000 gallons per hour; automatic parallel operation of units can be made to supply larger requirements. Raw water is pumped from the source through a filter and passed to a chamber where ozone oxidizes the bacterial contamination and delivers pure sparkling, fresh water that has no taste or odor. Unlike water that is disinfected by the addition of chlorine, there is no danger of overtreatment which may result in an unpleasant taste.

TANNERS FACE COMPETITION FROM LEATHER IMITATIONS. Hide and Leather and Shoes, March 21: Tanners who are bending every effort to aid the war drive and to supply vitally needed leathers for military footwear, clothing, and other war uses, are facing new competition from sponsors of plastic leather imitations and substitutes. It was reported this week that the Quartermaster corps has for some time been experimenting with plastic soles on Army shoes and that "at this moment on a number of soldiers' feet are shoes with soles of a vinyl plastic material, laminated to leather, being worn in tests to determine the suitability of the material." According to Women's Wear Daily, "it is understood the testing will not be complete for several months but that shoes already worn for about three months still have the soles unworn. The plastic, said to be several times tougher than leather, has been developed in several degrees of flexibility."

COLOMBIAN SOIL CONSERVATION LAW. Agriculture in the Americas, April: A new law passed by the Congress of Colombia provides for creation of a soil conservation service in the Ministry of National Economy to organize laboratories for soil analysis. It also authorizes the Ministry of National Education to establish vocational schools of agriculture and industry.

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N.J. TRUCK GROWERS SHIFT TO SOUTHERN PLANTS. New Jersey Farm and Garden, April: Sales of hot bed sash for cold frames have hit an all-time low. This report comes from dealers in the big trucking area in Gloucester and Salem Counties, N.J. The reason is not so much the price as the fact that growers are reducing the use of cold frames for tomatoes and are turning to southern-grown plants. The development of modern methods of growing and transporting field-grown plants from Georgia, at the same time that the cold frame plants are ready to go in the fields, has resulted in fewer hot beds being started and less cold frames being carried through late March and April. Growers have found that unless they are growing for the early table market, the southern plants produce ripe fruit within ten days to two weeks as early as the home-grown, sash-nurtured plants.

MODERN BREAD. In an editorial by this title, the A.M.A. Journal, April 4, says: Bread today is not the same as ordinary white bread of previous years. Now bakers use greater quantities of dried skim milk in the dough for all bread except Vienna style loaves. Rye bread and whole wheat bread also are ordinarily made without milk solids. If the skim milk solids are added at the rate of 6 pounds to each hundred pounds of flour (much of the white bread now is made with only half as much) the resulting white bread has almost the same riboflavin content as whole wheat bread made with water. Such milk bread has appreciably more calcium, from the milk solids, than the wheat grain. The milk proteins also represent a significant contribution. Nevertheless, ordinary white bread, while it is a good food, does not supply as much dietetic value as nutritional experts consider a bread should provide.

The vast majority of Americans prefer white bread to dark bread. Enriched bread can be made to satisfy this wish without much sacrifice of nutritive values that are associated with the darker breads. In England nutritionally improved bread is made with flour of 85 percent extraction, meaning that only 15 percent of the wheat grain is not incorporated in the flour. Ordinary white flour represents about 70 percent extraction of the grain. The British bread is fortified with calcium salts, which is an optional ingredient of American enriched bread. In the development of enriched bread, bakers have been guided by leading scientists and medical investigators. Enriched bread may now safely be utilized to supply as much as 40 percent of the calories of the normal diet, provided the greater consumption of enriched bread is at the expense of less nourishing foods.

COMPANY SALVAGES USED CARTONS. National Provisioner, April 4: The B.F. Goodrich Co. last year set up a special department for renovating cartons which had been used and were capable of re-use. More than 34,000 of these have now been handled by the department, and at an average of 2 lbs. each a total of 80,000 lbs. of box-board has been saved. Under previous practices, not only in this company but generally throughout industry, these cartons would have been classified as scrap and sold as such.

SCRAP TO BEAT THE JAP. Coastal Cattleman, April: As an example of what a little scrap will make -- a 200 pound aerial bomb requires 500 pounds of scrap metal, a 50 caliber machine gun requires 50 pounds of scrap metal, a 75 mm. howitzer requires one half ton of scrap metal, a medium 27 ton tank requires 18 tons of scrap metal, a 35,000 ton battleship requires 9,000 tons of scrap metal and a 3-inch anti-aircraft gun requires three tons of scrap metal.

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STRESS RESEARCH AS WAR MEASURE. Agricultural News Letter (Du Pont) for Jan. - Feb.: The imperative need for research and the proper direction of research in agriculture as a defense measure were stressed in resolutions recently adopted by the Association of Southern Agricultural Workers. This organization, representing more than 8,000 agricultural workers and leaders from both government and industrial organizations operating in the South, adopted resolutions dealing with such general subjects as cotton acreage, farm labor, coordination of farm programs, soil conservation, and priorities for certain agricultural materials and farm equipment. In addition a number of the resolutions requested renewed emphasis on agricultural research as a step toward victory in our war effort.

DEVELOP RANGE LAND SEEDER. Article in Western Livestock Journal, March: Reseeding of federally owned range lands in the West will be greatly speeded up by the development of a new type cultivator by the regional office of the Grazing Service at Albuquerque, N.M. It is called the Rowe range land seeder. The new machine was used last fall and excellent results secured. The cultivator is built out of a section of corrugated culvert. This machine makes holes in the soil about 10 inches apart to hold moisture and allow it to penetrate. The spikes break up the hardpan but do not leave a dust mulch to blow or wash away. The small corrugations press the seed into the soil. The machine is rugged enough to meet most conditions found on range land.

A number of these cultivators are now being built at field stations of the Department of the Interior and will be ready for operation in spring reseeding work. Where scrap materials are available, the cost of materials for building is estimated to run around \$20. The cultivator can be built any size, depending upon the diameter and length of corrugated culvert used. The smaller sizes are light enough to be pulled by horse power, thereby making the tractors and fuel that would be used in reseeding work available for direct war purposes.

WPB SECTION TO USE PRISON INDUSTRIES FOR WAR. Victory, April 14: Creation of a section within the Bureau of Governmental Requirements to cooperate with State governments and Federal procurement agencies in utilizing the shops and skilled labor of prison industries in the war effort has been announced. The bureau has been promised the cooperation of virtually all States in making the facilities of prison shops available for the production of war goods, most of which would be purchased by other governments warring against Hitler. The prison industries section is studying procedures which would enable the prison industries to sell to the Defense Supplies Corporation for Lend-Lease purposes.

A survey of the textile prison industries by the bureau shows that cotton mills operated by State prisons have 51,000 cotton spindles with a 7,000,000-pound annual capacity. A total of 1,671 cotton looms, operated by 3,100 inmates have an annual capacity of 19,000,000 square yards of 5½-ounce fabric, based on one shift of 40 hours a week.

BAN LEAD FOIL FOR CIGARETTES MAY 1. Victory (OEM) for April 14: Cigarette manufacturers have been ordered to stop using lead foil for cigarette packages on May 1. The manufacture of metal foil for this purpose has already been forbidden.

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The Daily Digest

Prepared by the Press Service for the use of USDA employees. Views and opinions
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Washington, D.C., April 17, 1942

SEEK QUININE SUPPLY OR SUBSTITUTE. Business Week, March 14:
Java's 37,500 acres of cinchona trees furnish the bark from which the world gets its quinine. The United States government ranks quinine second only to opium in its list of critical drugs. A federal stockpile of quinine has been accumulated. Its size is a secret but it is said to be sufficient for two years. There are two reassuring factors: Quinine supplies from tropical American sources can be increased, and production of atabrine (a synthetic substitute for quinine in the treatment of malaria) has been stepped up sufficiently to take care of any demand now foreseen. The British have begun small cinchona plantations in Jamaica and the United States has done the same in Puerto Rico. Development of larger supplies of quinine from Latin America is included in the Administration's plan for boosting noncompetitive products for good-neighbor commerce.

ARMY INSPECTS FOOD PRODUCTS. Butchers Advocate, April 8: An indication of the vast quantities of meats and dairy products purchased each month by the Army is revealed by the Jersey City Quartermaster Depot, one of the many similar installations strategically situated throughout the country. The veterinary staff inspected, during January, 5,787,000 lbs. of beef, veal, pork, lamb, poultry, eggs, dairy products, sausage, lard substitutes, fish and seafood. Of the 1,016,446 lbs. of meats offered by contractors at their plants, 112,000 lbs., or 11 percent, were rejected. Only 4 percent of delivered meats, however, were rejected upon inspection.

WAR CHANGES GRAZING-LAND MANAGEMENT. Western Farm Life, April 1: War conditions are forcing a change in improving grazing lands of Utah. The principal change will be a great reduction in fencing where such materials as galvanized iron, barbed wire, steel watering troughs and tanks have been used. On the other hand, more work will be done on building roads and trails for livestock and trucks to reach the desert and mountain grazing areas; to develop springs, wells and reservoirs where strategic materials are not required.

WPB ASKS CONSERVATION OF STOVEPIPE. Victory (OEM) for April 14: WPB urges home owners not to throw away stovepipes this spring when they are taken down before warm weather. Scarcity of steel will limit the amount of available stovepipe.

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OFFICE SPACE FOR FEDERAL WORKERS. Business Week, April 4: To find office space where it has never before existed is a problem faced by most communities which have become beneficiaries of the federal program of decentralization. In Kansas City, Mo., a new floor of 25,000 sq. ft. is being constructed in a display room of the Municipal Auditorium to accommodate Farm Credit Administration. In Philadelphia, the swimming pool at the Penn Athletic Club has been drained for the Securities and Exchange Commission.

WPB URGES CONSERVATION OF BRUSHES. Hide and Leather and Shoes, March 21: Importance of conserving the present supply of all kinds of bristle brushes and of reclaiming discarded brushes was stressed this week at the first meeting of the brush advisory committee of the War Production Board. It was pointed out there are many thousands of paint brushes in shops and homes all over the country that can be cleaned and used for a long time. Many paint brushes too worn or fouled for further use contain hog bristles that are more valuable now than when the brushes were made.

Conservation of existing brushes is doubly important because the industry, as a result of the war program, needs more brushes than ever before and because materials which go into their manufacture are scarce. These materials include hog bristles, rubber, cement, plastics, steel wire, and nylon and other bristle substitutes. Conservation of brushes by professional painters is especially important, but civilians can participate in the program by taking good care of paint brushes, tooth brushes, and hair brushes.

TO TEST AMERICAN HOG BRISTLES. National Provisioner, April 4: Experiments to determine whether American hogs can provide bristles to replace those formerly imported from the Orient were revealed by Philip H. Thayer, consultant on bristles and brushes of the textile division, War Production Board, at the convention of the American Brush Manufacturers Association recently in Atlantic City. Recent experiments in obtaining hog bristles from St. Paul packing plants showed that out of the first 9 lbs. of bristles collected and tested, more than half was suitable for brush manufacture and more than one-third met Army specifications. Experiments are being conducted with a 1,000-lb. batch to see whether the ratio can be maintained.

Bristles 3 inches long or longer are most valuable, although bristles as short as 2 inches are used for some purposes. Suitable bristles can be collected only during the November to March season as they are longest and hardest then; summer bristles are too short and soft. Bristles used for brushes must be pulled from the shoulder and spine immediately after scalding. No successful mechanical pulling method has been developed. Bristles are dried and sold uncleaned; possible yield of bristles per hog might run in the neighborhood of .03 pound.

HAULING PLAN SAVES FARMERS' TIRES. New Jersey Farm and Garden, April: A Vincentown canner has hit upon a novel scheme to get his contract tomatoes hauled, when farmers' truck tires may be gone and none can be secured from local rationing boards. A loading platform is being established near Freehold, where farmers may haul their tomatoes in ordinary farm wagons. The tomatoes will be picked up by large commercial trucks and hauled to the Vincentown plant which is more than forty miles from the growing area. This service is to be charged at the usual hauling rate of \$3 per ton.

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CONSERVATION AIDS AGRICULTURE IN WARTIME. Coastal Cattleman, April: Texas farmers and ranchmen, avoiding the mistakes of the first World War, can achieve the Food-for-Freedom goals without impairing their production plant, the soil on their farms and ranches. In the last war, we produced the foods and fibers and vegetable oils needed for victory, but we ruined millions of acres throughout the nation. That won't happen to Texas farm and ranch lands this time. Texas farmers and ranchers, supported by the USDA, other federal agencies, and local and state agencies, already have a going program of conservation and wise land use. Because of this soil and water conservation program, the farmers and ranchers can expand production to meet the demands of Food-for-Freedom without the land waste of the first World War.

ASKS "HOUSECLEANING" TO SALVAGE SCARCE MATERIALS. Victory, April 14: A Nation-wide spring housecleaning for materials that can be salvaged for war production is called for by the Bureau of Industrial Conservation. Old metal ornaments, obsolete plumbing and heating equipment, broken tools -- these can become parts of guns, planes and tanks; old tires and tubes, hot water bottles and bath mats can go into the production of reclaimed rubber so critically needed to replace our lost supply of crude rubber from the East; old rags will be made into wiping rags for use in war plants, and wastepaper is in demand for conversions into cartons.

Through State and local salvage committees organized by the bureau, the public has been instructed to sell waste material to local dealers or give the collections to any one of a number of charitable organizations active in the salvage field. In rural areas, the Department of Agriculture is cooperating through its County War Boards, and in country sections where collection facilities were not available, Work Projects Administration trucks and labor are being utilized.

EDIBLE FISH FROM FARM PONDS. Soil Conservation, April: The farm pond offers the American farmer the opportunity to engage in fish culture and thereby increase the yield of his land, improve his family food supply, and augment his cash income. Several artificial ponds in Illinois were found to have an average annual yield of more than 200 pounds of fish per acre. One of these ponds produced 377 pounds per acre. From natural ponds in Colorado, 100 pounds of fish per acre were taken annually by hook and line. A fish inventory of 17 ponds in Michigan, Illinois, Alabama, Louisiana, and Nova Scotia revealed that the average standing crop was 275 pounds per acre. These are productivity figures for unfertilized ponds; experimental evidence indicates that the productivity of a pond can be more than doubled with fertilization.

CHILE PLANS SHELTERBELT. Agriculture in the Americas, April: A planned expenditure of 25 million pesos has been announced by the Agricultural Colonization Bank of Chile, to bisect the northern part of that country with a forestal barrier to the great Atacama Desert, which has been moving southward toward the central, populated area at the rate of one kilometer a year. Within a little more than a century a few patches of stubble for wild goats has replaced the forests which the Spaniards found when they came down from Peru.

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FOOD SUPPLIES IN ENGLAND. Francis Flood (recently returned from England) says in Wallaces' Farmer, April 4: The English people today, after two years of war are living now on what scientists call an "adequate" diet. That means that the English get "enough" to eat. However, if the British could get more than "enough" they could do more work, their industrial output would increase by 15 or 20 percent. This means that every 600 English planes could just as well be 700, and that food would "keep 'em flying." That means that about one day's work each week could be gained, in output, if our ally had more food.

Even before the war, the English people didn't eat as much as we do here, only about three-fourths as much per person per year. And now they are eating from 10 to 15 per cent less than before. Today, our English allies in this war are eating about two-thirds as much per person per year as in the United States. England today produces far more food than before the war. They have--in the face of farm labor shortage, the nuisance of blackouts, shortage of machinery, bombings of their fields, and all the other difficulties--stepped up their food production enormously. England has increased her own food production by almost 2,000,000 tons a year.

DEHYDRATING INDUSTRY. Business Week, March 21: The consumer market for dehydrated foods -- as opposed to Army or lend-lease -- may pan out to be the big immediate objective, and one that will last into postwar days. To boost this industry along, the National Dehydrators Assn. has drawn up informal rules to help those who want to get started: (1) Quality must be the first consideration. (2) Have access to a crop. Usually canners, who are old and established, have first crack at crops because they have agreements with farmers. (3) Don't start on a shoestring. A rough formula is to figure on dehydrating 500,000 lb. per year in order to get any profits (more if the crop is bulky and cheap, like potatoes). (4) Army and lend-lease purchases are now on a competitive basis, but will probably tend more and more to be negotiated contracts. (5) In aiming at Army and lend-lease orders, bear in mind that these two agencies buy according to specifications (minimum quality standards) and insist on certain kinds of packaging. (6) In addition to specifications, a formula for grading is available from the Department of Agriculture, Washington, D.C. Such grades now cover the following: Corn, pea, and bean soups, white and sweet potatoes, onions, cabbage, carrots, beets, turnips, tomato juice cocktail, cranberries, and apples.

TRANSFUSION REACTIONS RELATED TO DIET. Science Service release, March 30: Safer blood transfusions may result from studies reported by the Northwestern University Medical School at the recent Federation of American societies for Experimental Biology. Relation between the kind of foods eaten by donor and recipient and harmful reactions to blood transfusions was discovered in studies on dogs. Harmful reactions occurred most frequently when the recipient had been fasting, as many patients receiving transfusions must do because of their seriously ill condition, and the blood donor had been fed before the transfusion a protein or carbohydrate-protein meal, as, for example, meat, or meat and potatoes or meat and bread. Harmful reactions in a fasting recipient occurred less frequently when the donor had been fed a meal of starches and sugars alone, or had also been fasted before giving blood. Nor harmful reactions occurred when both donor and recipient were fed before the transfusion.

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Washington, D.C., April 20, 1942

ARMY DEVELOPS PREFABRICATED CAMPS. Science Digest, May: Prefabricated buildings of sturdy construction which can be easily shipped, quickly assembled, and suitable for troops in varying climates have been developed by the Corps of Engineers. The buildings are of all-wood or wood and steel construction. One of the all-wood types is designed for erection in temperate climates such as the United States, another for use in tropical climates and a third for erection in cold climates. Types designed for erection in the tropics have insulated roofs and stand well above the ground to protect troops against reptiles and insects. Those for cold climates are well insulated and strong enough to resist a heavy gale. A fourth type, made of steel with a wooden floor and inside insulation, also will be used in cold climates. Engineering News-Record.

LOCAL WAR PROGRAM ON FARM LABOR. Land Policy Review (BAE) for April: A county organization is needed to cope with farm labor problems — an organization that begins with the United States Employment Service and the USDA War Boards established in every agricultural county. In order to provide county USDA War Boards with the machinery necessary to fulfill their responsibilities in the labor field and also in order that labor problems shall be tied in with over-all agricultural planning for the counties, it is recommended that the following organization be set up to function as a joint subcommittee of the war board and the county agricultural planning committee:

The Farm Security Administration supervisor, after consulting with local agricultural people interested in the labor problems and the welfare of laborers, shall appoint, with the approval of the district supervisor, a county War Farm Labor Committee consisting of representatives of the FSA, USES, WPA, two USDA agencies (one to represent the defense board and one to represent the planning committee), two farmers, and two farm laborers.

NEW REFRIGERATOR CARS. Ice and Refrigeration, April: Orders for two thousand new refrigerator cars of the latest design will be placed shortly by Pacific Fruit Express, Los Angeles, Calif., operator of the world's largest freight refrigerator car system. The company has been authorized to spend more than \$21,000,000 for new cars and for rebuilding and heavy repairs to equipment in 1942. Deliveries of the new cars are expected to start before the end of this year or in the early weeks of next year.

April 20, 1942

BALING WOOL IN COTTON PRESSES. News for Farmer Cooperatives, March: Baling wool in cotton-gin baling presses is a new packaging possibility that may result from the necessity of saving burlap and the desirability of conserving transportation facilities. The feasibility of the plan was recently tested by the FCA cooperative research and service division and the Department ginning laboratory at Leland, Mississippi. Wool was trucked from Fort Worth, Texas, to Leland, for the experiment. It was found that a savings in packaging material of approximately 50 percent can be made by compressing wool into bales weighing between 500 and 600 pounds at a 19-pound per cubic foot density. Very lightweight covering can be used -- lightweight burlap over the ends and two sides of the bales with a narrow strip of heavy wrapping paper over the other two sides. With some grades of wool it will be possible to eliminate the paper. A second advantage in baling is that nearly twice as much wool can be loaded into a car in bales as in bags. Savings to growers in shipping costs would average about 25 cents per hundredweight, and would be as high as 42 cents less in some far western States. Against these advantages is the fact that wool does not show up to its best after it is pressed into bales. However, one of the chief sources of competition in the wool market today is that of baled wools from foreign countries.

The biggest obstacle to the immediate widespread conversion of wool shipping from bags to bales is the fact that cotton gin presses are not customarily to be found in the chief wool areas. In the South, however, it is estimated that there are 1,400 idle gins, approximately 80 percent of which have presses suitable for baling wool. Some of these gin presses are all wood construction; others are steel and wood. It is believed that the cost of purchase, shipment and installation of second-hand presses at wool concentration points would be less than the cost of new presses installed at approximately \$2,500.

MULTIPLE-NOZZLE BOOM FOR SPRAYER. American Fruit Grower, April: To help meet labor shortages in the commercial fruit and vegetable growing industries, a company has designed a new sprayer, fitted with a multiple-nozzle boom, which takes the place of the conventional spray guns in citrus spraying. Capable of delivering great volumes of spray liquid, this new gun enables one man to do the work that ordinarily would take two or three men with conventional orchard guns. This new gun is used only with sprayers of 20-gallon or more capacity and it will deliver the full capacity of a 20 to 35-gallon pump.

POOLED MILK DELIVERIES CONSIDERED. The Moos, April: A survey in Warren County, New Jersey, conducted by the State College of Agriculture at the request of the County Board of Agriculture, to consider possibilities of producers pooling milk deliveries, showed that 479 dairymen haul their milk a total of 5,252 miles daily to 16 creameries. The distance varied from one to 70 miles a day per farmer. The purpose of studying the possibility of consolidating milk pick-up routes was to aid producers in conserving rubber and gas. The survey indicates also that a mutual plan for hauling milk would be less expensive and help to save labor.

April 20, 1942

SAYS NO SHORTAGE OF CIVILIAN SHOES IN 1942. Hide and Leather and Shoes, April 11: Despite the fact that the Government's shoe buying program will be expanded three or four-fold during 1942 and substantial amounts of the best grades of leather will be consumed, no shortage of civilian footwear is anticipated this year. The 1941 production of 500 million pairs of shoes was nearly 100 million pairs in excess of the 1940 total of 404 million pairs. About two-thirds of the increased output was carried over into this year in the form of surplus inventories in the hands of wholesalers and retailers. The first quarter of 1942 has witnessed for the first time in the war period an expansion of sales greater than the increase in production as compared with the corresponding period a year before, with the result that inventories are down by about a third.

STAPLE LENGTHS OF COTTON AND WARTIME NEEDS. Agricultural Marketing Administration has issued a mimeographed report, which brings up to date a study, begun during the cotton season 1938-39, of market outlets for the various qualities of cotton produced in the United States, and includes data on the cotton seasons 1939-40 and 1940-41. Although the study was designed primarily for the cotton improvement program, the war has made it advisable to intensify the work to provide timely information on various qualities of cotton needed for the military services.

About 99 percent of the cotton consumed by domestic mills in 1939-40 and 1940-41 consisted of American upland cotton ranging in staple length from shorter than 7/8 inch to about 1-1/2 inches. The other 1 percent consisted principally of very short staple oriental cottons and extra long staple cottons imported from Egypt, Peru, and the West Indies. These cottons are imported for specialized uses for which they are considered better suited than American upland cotton. Mills manufacturing fine goods for which extra long staple cotton is used obtain a substantial part of their supplies of this type from domestic growths of American-Egyptian and sea-island cottons.

APPLE VARIETIES AFFECT STORAGE SUCCESS. Ice and Refrigeration, April: Cold storage is not a cure-all in the marketing of apples, C.O. Bratley of the U.S.D.A. emphasizes in a memorandum prepared for members of the National Association of Refrigerated Warehouses. "Success of storage depends in large measure on the quality and condition of the apples delivered to the warehouse."

There are wide differences in the storage life of different varieties of apples, and almost equally wide differences with a single variety when grown in different orchard regions. McIntosh, for example, grown in New York or New England can be stored until midwinter, but McIntosh from orchards in the Middle Atlantic states are early apples, storable for only a few days. Northern grown Bladvins, Rhode Island Greenings, and Northern Spies may be stored all winter, but the same varieties grown farther south are suitable for only brief storage. For safe storage the warehouseman needs to know not only the variety and condition of the stock, but also where it grew.

MARCH STEEL PLATE DELIVERIES SET RECORD. Victory (OEM) for April 14: Steel plate shipments in March set an all-time record of 878,726 tons. February shipments were 758,723 tons. April deliveries are expected to equal the March total, although the former month has one less working day.

NICOTINE-BENTONITE SPRAYS FOR CODLING MOTH. Agricultural Leaders' Digest, April: During the past seven seasons various nicotine-bentonite combinations have been extensively tested by the Michigan Experiment Station with satisfying results from the control and residue standpoints. From among the great number of combinations tested it appears that, taking into consideration codling moth control, fruit finish, freedom from the necessity for residue removal, and foolproof performance, the factory processed fixed nicotines offer an adequate replacement material for lead arsenate against codling moth. These materials, when used with summer oil emulsions, offer the advantages named above without danger of arsenical injury and at a cost strictly comparable to the cost of control with lead arsenate plus washing. Some of our choice varieties, such as McIntosh and Spy, do not wash well. Factory processed fixed nicotines plus oil have equalled or bettered control by lead arsenate.

WPB RESTRICTS NON-DEFENSE BUILDING. War Letter for Agriculture, April 10: To halt construction not directly connected with defense, WPB has prohibited starting unauthorized construction projects which use materials needed in the war effort. No new agricultural construction may be started without permission if the cost is \$1,000 or more. This will cover a large percentage of farm building. No agricultural construction in excess of \$1,000 will be eligible until individual applications are approved by the WPB. USDA War Boards will certify applications locally. Farm houses are limited to \$500, unless the purpose is to restore construction damaged or destroyed under specified conditions. In computing costs, the amount spent on the project within 12 months of the date of beginning construction, and subsequent to April 7, 1942, is included.

UNEMPLOYMENT INSURANCE FOR THE HOUSEHOLD WORKER. Article by this title, in Journal of Home Economics, March, says: More women in the USA are employed for household service than for any other one paid occupation. Though they are a recognized and important part of our national resources, they have an inferior social and economic status which acts as a barrier to improvement of standards in the field. Social justice demands that unemployment insurance be extended to them. As means to this end the following three methods are urged.

- 1) The present Social Security Act should be amended to include household employees. A blanket federal amendment would, of course, be much more effective than scattered, uneven state legislation.
- 2) The stamp book method should be used as a simple and satisfactory system of administration with workers who frequently change jobs.
- 3) Special provisions should be made that the benefits which household employees receive equal a basic minimum, for to base payments solely upon their contributions would be tantamount to denying them such benefits. As the American Association for Social Security has pointed out, it would serve no purpose to give them social security under the present scheme.

LEAFLET TELLS HOW TO PLOW TERRACED LAND. A new USDA leaflet, No. 214, says that the most important operation in keeping terraces in repair is proper plowing. A series of pictures in the leaflet illustrates proper methods for plowing terraced land on the contour. The leaflet, written by SCS, is available free from Information, Washington.

The Daily Digest

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Washington, D.C., April 21, 1942

TWO "ADMINISTRATION" UNITS ARE NOW "AGENCIES": Names of two of the four units of the Agricultural Conservation and Adjustment Administration have been changed. The Agricultural Adjustment Administration becomes the Agricultural Adjustment Agency. The Sugar Administration is now the Sugar Agency. The other two units — the Soil Conservation Service and the Federal Crop Insurance Corporation — remain unchanged in name.

FACTS ON THE FOOD SUPPLY. Article by this title in The Commonweal, April 17: During 1941 we shipped to Great Britain or bought for delivery to British agents in this country enough food to fill 69,100 freight cars which would make a freight train 575 miles long.....We shall in 1942 produce enough extra milk, over and above the average quantities produced yearly in the pre-war five years, to fill a line of tank trucks each holding two tons of milk that would reach entirely around the earth.....We shall produce enough extra one-dozen cartons of eggs to reach from here to the moon, enough extra meat to pave a four-lane highway one inch deep from New York to San Francisco and then back to New Orleans. We shall produce enough extra cases of canned vegetables to reach from Los Angeles to Vladivostok and enough extra cases of canned fruit to reach from New York to Liverpool.

So far there is no reason to think we shall not have sufficient food for the needs of all American citizens. It is impossible exactly to estimate the requirements of our allies, of course, but there is no reason to think that we should adopt the policy of starving ourselves to feed our allies. We have pooled our resources with the United Nations, and that includes food. But the FFF Program for 1942 makes what economists and nutritionists regard as ample provisions for us and such of our allies as will be in need.

EQUIPMENT CONSERVATOR. Secretary's Memorandum No. 996, Supplement 1, says: A.B. Thatcher, Chief, Plant and Operations, has been designated to serve as Equipment Conservator, for conserving mechanical and technical equipment owned by the Department. Critical shortages in most equipment are developing. These must be met by husbanding what we have and making it available where it is most needed. Mr. Thatcher will advise the bureaus concerning mechanical and technical equipment problems. Bureaus are expected to submit plans conservation of automotive equipment, as ordered in Memorandum No. 996, to Mr. Thatcher not later than May 15.

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WASTED MANPOWER IN AGRICULTURE. Under this title, article in Land Policy Review (BAE) for April, says: There is on the Nation's farms a gigantic reservoir of untapped man-power represented by thousands of small, low-income farmers who do not have enough productive work to do. Food for Freedom loans to these farmers should be directed to: (1) Increase the acreage, and improve the efficiency of production, of the crops needed; (2) get livestock on farms needing it, such as gilts for breeding, baby chicks, cows headed for slaughter which are still fair producers and heifer calves which would otherwise be vealed; (3) pay operating costs during the production season in order for the farmer to hold his crops and livestock until ready for sale; (4) buy feed and seed; (5) buy fertilizer and limestone; (6) buy implement and machinery repairs; and (7) buy work-stock.

Such a credit program would not involve large loans. In the production outlined earlier for the 1,200,000 low-income farmers to be reached before the 1943 season, the loan requirements would average less than \$300 per farm. This would require a total loan fund available for credit for these farmers of about \$350,000,000. It is estimated that the total value of the new war food produced by these 1,200,000 low-income farmers in 1943 would amount to \$390,000,000. This would guarantee a substantial repayment of these loan funds within a 2-year period -- in addition to adding measurably to the Nation's supply of essential foods in 1943 and each year thereafter.

OKLA. FFA GATHER SCRAP, REPAIR FARM EQUIPMENT. Better Farm Equipment and Methods, March-April: The 7,700 members of 171 FFA chapters in Oklahoma are investing proceeds from sale of scrap iron, aluminum, steel cable and tin cans in defense stamps and bonds, with a total goal of \$50,000 which must be reached before July 1. The FFA boys are volunteering their services gratis in helping adult farmers in the 171 state communities where FFA work is being carried on in repairing their farm machinery. Vocational farm shops throughout the state have been opened to the farmers, and will remain open 24 hours a day if needed to get the machinery in top running condition. The boys are also making surveys which will cover an estimated 20,000 farms, showing the number and condition of all machinery now on hand, the probable new or replacement parts which will be needed this spring, and any spare parts which farmers may have for sale or exchange.

PINKEYE AGAIN AFFECTS HORSES. Farm Journal, March: The old-time horse disease pinkeye, or epizootic cellulitis, has again appeared in scattered areas in the Midwest. Many veterinarians who have practiced less than 30 years are seeing their first cases. Its occurrence is not confined to horses in transit, for some stables have been hit where work stock has not been off the farm for months. Pinkeye usually appears suddenly. Affected horses are stiff, carry a high fever, and the eye membranes are very red with a copious discharge of tears. The eyelids and legs may be quite swollen, and periodic chills are not uncommon. Duration of the trouble is from a few days to a couple of weeks. Horses of all ages may be affected. Never work a horse with pinkeye until he has fully recovered. The penalty may be permanent blindness.

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TIN SUBSTITUTES FOR CANS. Business Week, March 14: A month ago, Business Week reported that "two processes -- electroplating and 'bonderizing'...are going to help stretch the nation's supply of tin, as tin was never stretched before." Several months hence, after new coating equipment has been installed by the sheet mills and shaken down, there is a strong possibility that bonderizing alone will begin to stretch tin out of can making (which used 48,000 of the 115,000 tons of tin consumed by the United States in 1941). The can makers were "not sure that bonderizing will stand up like a heavy coating of tin against tomatoes, corn, kraut, and certain other obstreperous canned products...." Now, as the result of promising tests, at least two of them think that bonderized sheet can be used for any canning purpose now served by tin plate. One of them is experimenting with silver solder for side seaming as insurance against the remote possibility that tin solder will all be commandeered for direct war production. Contrary to popular impression, the new bonderized cans will not be black but will have a "golden sheen," not unlike the color of the heavily lacquered interior of a standard beer can.

USDA AIDS NEW JERSEY DEFENSE. New Jersey Farm and Garden, April: All USDA trucks, tractors, automobiles and other equipment used in New Jersey for Dutch elm disease control, soil conservation, forestry, Japanese beetle eradication and other projects have been made available to the New Jersey Defense Council. Personnel using such equipment will be sworn in as a special defense unit for emergency service.

CONCENTRATED FERTILIZER SAVES BAGS AND SPACE. Coastal Cattleman, April: Five million burlap and cotton bags are being wasted in the United States each year and 500,000 tons of useless matter is being hauled around the country, according to the Texas Extension Service. The farmer who buys a 100-pound sack of 4-8-4 (4 percent nitrogen, 8 percent phosphate, 4 percent potash) fertilizer gets only 16 pounds of plant nutrients. If he buys 6-12-6, he gets 24 pounds of nutrients, while 10-20-10 has 40 pounds of nutrients and only 60 pounds of filler. Only 160 pounds of 10-20-10 per acre will do the job of 400 pounds of 4-8-4 and a 17 percent saving is effected for freight, mixing charges, handling and bagging. Farmers who insist upon fertilizer in more concentrated forms and dealers who push sales of this type will be making a fine contribution to our war effort.

ASKS FEDERAL EMPLOYEES TO AVOID R.R., BUS, CONGESTION. Victory, April 14: The Office of Defense Transportation has requested all Federal Government employees to aid in preventing passenger congestion on railroads and bus lines by exercising greater care in buying tickets and reserving space accommodations. Government employees should buy tickets and Pullman space well in advance of train departure, should reserve space accommodations only for trips which are reasonably definite, and should notify carriers immediately if cancelation of reservations becomes necessary.

FROM BOTTLES TO BATTLES. Victory (CEM) for April 14: Twenty-four distilleries are sending beverage alcohol, known in the trade as "high wines" and running 120 to 140 proof, to industrial alcohol plants where they will be redistilled into 190 proof industrial alcohol, used in making smokeless powder.

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NON-MECHANICAL REFRIGERATORS COME BACK. Business Week, April 4: WPB has authorized manufacturers of non-mechanical refrigerators to turn out 495,000 units in the year commencing July 1, an increase of 147% over the 200,000 units scheduled for this fiscal year. (But steel is limited to 20 pounds per box.) The reason for this contrary-to-trend ruling is fairly obvious. Since output of mechanical refrigerators (except kerosene) has been halted, some provision must be made for refrigerators in new homes or as replacements for outworn units.

This suggests that in civilian life we may go part-way back to grandmother's era. We're going to have to get along without new vacuum cleaners, stokers, oil burners, and fancy stoves with thermostat controls. Mops, shovels, and broomstraw for testing cake may stage a comeback. At least WPB's ruling points in that direction; and businesses the gadget age deflated may give their owners a war-born taste of prosperity.

NEW CIRCULAR DISCUSSES MARKETING OF GREENS. A new USDA Circular, 644, by AMA says that the term "greens" as used in vegetable marketing is generally understood to refer to green leaves and stems of plants which are boiled for food. It discusses standards for grading, methods of shipment, and other problems in marketing of greens. It is available free from Information, Washington.

WPB BANS USE OF TIN FOR CANNING COVERS. War Letter for Agriculture, April 10: Tin can no longer be used on cover caps for tomato catsup and chile sauce, and for home-use jars of jelly, jam, marmalade, and preserves. Likewise, use of tin in the manufacture of screw caps for two-piece covers for home canning will be banned. Suitable caps can be made from other material.

SHRUBS BY DIRECT SEEDING. Article by this title, in Soil Conservation, April: In the Southeast a way has been found to establish certain shrubs by direct seeding. The simple and inexpensive way to do it has been perfected during 4 years of field-scale trial. Among the woody plants most successfully grown by broadcasting or sowing the seed are the shrub lespedezas which have several promising features for farm use. They are easily kept in place because they do not spread by root suckers and do not seed into hay or grassland. Burning or cutting back to the ground does not kill them. The purple flowers produce honey, and quail eat the seed readily.

CUBAN LAW REQUIRES DIVERSIFIED FARMING. Agriculture in the Americas, April: To encourage the diversification of farming, the Cuban Government has enacted a law providing that operators of large sugar farms must divert part of their land from sugarcane to rice, corn, peanuts, beans, and other food crops. The law applies to operators of farms larger than five caballerias (about 165 acres). Cattleman may raise hogs instead of growing food crops. The Cuban Ministry of Agriculture will help in meeting expenses of the plan by supplying part of the needed seed, agricultural machinery, implements, and insecticides.

SOURCES OF U.S. QUININE SUPPLIES. Victory (OEM) for April 14: comments on recent order establishing control over the supply and distribution of quinine: Ninety-five percent of cinchona bark (from which quinine is derived) comes from Java. The Federal Government has built up a large stockpile and there is a substantial supply in the hands of manufacturers and distributors. Estimated military needs for the rest of 1942 will exceed the expected production to be obtained from South American sources.

The Daily Digest

Prepared by the Press Service for the use of USDA employees. Views and opinions in these items are not necessarily approved by the Department of Agriculture.

Washington, D.C., April 22, 1942

140,000,000 MEALS A DAY. Under this title, article in Country Gentleman, April: Home-produced food is, for the first time in a century, furnishing the bulk of England's 47,000,000 meals three times a day. It couldn't be done, of course, without rigid government control that starts in the Ministries of Agriculture and Food in London and filters through county and local authorities to every farmer and consumer. The Ministry of Agriculture's production job means coordinating available land, labor, machinery, feed and fertilizers to best possible advantage. On the distribution end, the Ministry of Food must see that the limited imports supplement, as wisely as possible, home products -- and that all food is fairly divided among all the people.

Some people in England believe that rationing of basic foods--insuring as it does a fair distribution to rich and poor alike--may pass over into peacetime. The job of determining the public's reaction to the food situation belongs to the ministry's Food Advice Division, which has established centers in key towns and cities. Out from them, by means of practical demonstrations and simple pamphlets, goes help on wartime cookery with the emphasis on better nutrition. And in through them, to the Ministry of Food, go housewives' questions and complaints. Workshop of the Food Advice Division is the research kitchen at the ministry headquarters in London. In progress continually are experiments on new and familiar foodstuffs reduced to wartime conditions--desiccated soups and meat, fish powder, dried vegetables. Housewives' own recipes are tested; new dishes to give variety to the menu, and fuel-saving methods of cooking are tried out.

ISSUE NEW PUBLICATION ON TESTING FARM SEEDS. USDA last month issued M.P.437, "Testing Farm Seeds in Home and School" (available free from Information, Washington). This publication describes methods of home testing for germination and purity, includes pictures of various kinds of farm seed, and descriptions of important weed seeds. Easy-to-build equipment for testing and germinating seeds is also described.

ITEMS FOR A GUN, HAND GRENADES. Victory (OEM) for April 14: Two door hinges, 1 door lock, 1 spade, 1 trash burner, 1 trash basket, 1 pair of roller skates will make one .30 caliber machine gun. And a 5-pound flatiron will make four hand grenades.

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INTER-AMERICAN AGRICULTURAL CONFERENCE. Agriculture in the Americas, April: The Americas, food arsenal of a warring world, will marshal their agricultural forces at the second Inter-American Conference of Agriculture July 6 to 16 in Mexico City. Pan American Union is the planning agency; all the republics will participate. Everyday problems of agricultural production in the Americas will not be neglected, but will yield precedence to discussions of present-day and post-war needs. Rubber, fibers, oil, and medicinal plants are on the program, along with grains, fruits, coffee, and sugar, the traditional basic crops. The conference will study agricultural resolutions of the Rio meeting of foreign ministers and propose measures for applying them.

URGES CONSERVATION OF ROPE. One battleship needs over six miles of rope for a complete outfitting. If every piece of rope were made to last only 10 percent longer, the country's stockpile would be increased 15,000,000 pounds annually, says the Plymouth Cordage Company, North Plymouth, Mass. The company has issued a booklet, Making Rope Last Longer, which is being distributed free, in quantity, upon request, to any person or business in a position to conserve the use of the country's supply of rope.

FLAX IN NATIONAL DEFENSE. Successful Farming, March: Today, flax holds a position of importance in National Defense. In the defense field, everything from gunstocks to battleships requires finishes--paints, varnishes, and the like. Vast quantities of finishes are also necessary for commercial purposes. And for years, linseed oil, the oil removed from flaxseed, has been the best drying oil for use in these finishes. The drying industries in general--paints and varnishes, linoleum and oil-cloths, and printing inks--used 98 percent of our linseed oil during peacetime. In fact, linseed supplied more than two-thirds of their oil requirements. Tung oil, most of which was imported from China, was the second largest source of supply.

Difficulties connected with the importation of tung oil have made linseed oil the only high-type drying oil obtainable in large quantities at the present time. Consumption in 1940 required approximately 31½ million bushels of flaxseed. Last year consumption totaled about 45 million bushels. Even peak production by American farmers has never been sufficient to meet this demand. Needs in excess of production have been met with imports, principally from the Argentine, which have averaged about 15 million bushels of flaxseed each year during the last 10 years. Flax has, however, shown an upturn lately--due to better prices, the Flax Institute, and regulation of the AAA making flax a non-soil-depleting crop when grown with certain legumes and grasses.

GROUP WAREHOUSING PLAN ANNOUNCED. Victory, April 14: A group warehousing plan designed to permit more efficient use of storage facilities and to simplify dealings between warehousing companies and Government procurement agencies has been worked out by the Office of Defense Transportation, War Department, and other Government agencies. The plan calls for the pooling of available storage space through emergency warehouse associations formed by public merchandise warehousemen in distribution centers throughout the country. The plan is already in operation in

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Kansas City, Mo., where a contract has been signed on behalf of the War Department and a newly formed Federal Emergency Warehouse Association of Kansas City, made up of 11 local warehousing companies.

CANNED GOODS RESTRICTION IN CANADA. Ottawa report in Business Week, March 14: Canadian packers now have orders to can a limited variety of fruits and vegetables, sell them at prices fixed by Ottawa in containers of fixed sizes. Around 250 canners are affected by the order which restricts packing in tins to a few vegetables and fruits--beans, corn; peas, tomatoes, pumpkin, squash, spinach, and fixed maximum quantities of mixed vegetables, Canadian asparagus, apricots, peaches, pears, plums, berries, cherries, fruit salad, jams, jellies. Other vegetables and fruits ordinarily packed in tin are expected to be preserved in the home or by dehydration.

Regional prices have been fixed on 1942 tomatoes, tomato juice, peas, corn and green and waxed beans. If canners pay advances on entire crops not less than amounts stipulated, they will be allowed to sell to the government-owned Commodity Prices Stabilization Corp. such part of their pack as remains on their hands after Feb. 1, 1943, at prices fixed by the board. An additional prop for the price ceiling is an order fixing prices on baskets, crates and other packages for fruits and vegetables and standardizing them. Manufacturers of such packages are barred from decorating them with brands or trademarks.

SOIL CONSERVATION AND NATIONAL DEFENSE. Chief of SCS, in Soil Conservation, April: Since the last war we have learned that we cannot achieve maximum production on all lands unless we fit our crops to the capabilities of the land itself. Surveys of the use capabilities of American farmland, in several hundred localities well scattered over the United States, have revealed that we cannot be confident of long-time high production from our better lands unless we produce the crops with soil-conserving measures of lesser or greater intensity, as the case demands. I want to focus attention upon the total of approximately 33 million acres, included within the agricultural area of the country, that are clearly unfit for the production of cultivated crops, hay, pasture, or trees. This area is as large as the entire State of New York. We cannot afford to let this much land remain idle; nor can we waste fertilizer and effort trying to produce crops it is incapable of supporting. Some of the land within these 33 million acres has been so gutted by erosion that even trees will not grow on it.

INTRACOASTAL CANAL BECOMES STRATEGIC ROUTE. Atlantic Intracoastal Waterway is gaining importance as a result of the war. The waterway is a sheltered passage running the length of the coastline from Boston to Miami. It has been built up over many years by construction of short canals linking a multitude of inlets, sounds, and river mouths. Travel along its length is slow, a ten-day run for almost any vessel. Because of ship shortages, the possibilities of moving freight or oil by barge tow through the canal are being studied. Barges can be built quickly of wood or can be snatched from inland rivers. This is no negligible means of transport; 20,000-ton barge tows are not unknown on some rivers. But such transport needs sheltered water. For barges, there's sheltered water all the way from New York to Miami except for the circuit around New Jersey from New York harbor to Delaware Bay. (Business Week, Apr. 11.)

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CANADA FULFILLS HALF OF BRITISH BACON AGREEMENT. Dominion Department of Agriculture, Ottawa: On April 4 the half-way mark of the 1941-42 bacon agreement with the British Ministry of Food was reached. In the first 26 weeks of the agreement a total of 326 million pounds of bacon and pork products were purchased for Britain. The agreement calls for delivery of not less than 600 million pounds. From January 1, 1941, to the end of March, 1942, there has been an increase in the average slaughter weight of hogs from 154 pounds to 159 pounds per hog. This means on an inspected slaughter of about 125,000 hogs per week, an increase of about 625,000 pounds of bacon and pork products or approximately 15 million pounds more will be available for Britain in the remaining six months of the agreement. To provide Britain with 274 million pounds of bacon in the remaining six months of the agreement will require about 2,283,333 hogs.

PUERTO RICO LAUNCHES NEW FISHERY INDUSTRY. Business Week, March 21: Believed to be part of the Anglo-American Caribbean Plan, to be evolved by the commission appointed recently by President Roosevelt and Prime Minister Churchill, Puerto Rico is building an entire new industry. Already \$1,500,000 is waiting in the local legislature to be turned over to the Department of Agriculture and Commerce to buy vessels, fishing gear, canneries, refrigeration equipment, to set up a fishermen's cooperative. Although boats and other equipment are scarce, this is one project being built under top priority ratings. The Fishery Research Laboratory at Mayaguez, attached to the Fish and Wild Life Service of the U. S. Department of the Interior, will continue studies of the handling and packing of fresh fish. Experiments already are under way on the best methods to freeze, salt, smoke and dry fish locally. The utilization of fish by-products will also be a main part of the program.

A TIP TO SAVE GASOLINE DURING THE WAR EMERGENCY. The Commercial Car Journal for March, 1942, reports that a study made by the International Harvester Company reveals that 100 truck drivers of varying degrees of nervousness consume 3700 gallons extra fuel yearly by "pedal patting". "Pedal Patting" is racing the engine unnecessarily while idling at traffic stops. The results of the test are as follows:

No. of Drivers	"Pats" per 150 Stops Daily	Gal. Gas Wasted Yearly
25	None	None
35	1	682.5
20	2	780.0
10	4	780.0
5	5	487.5
<u>5</u>	<u>10</u>	<u>975.0</u>
100		3705.0

38 STATES REPORT 870,000 TONS OF SCRAP MOVED. War Letter for Agriculture, April 10: Reports, some of them partial, on movement of scrap iron through USDA War Boards indicates that by the end of March more than 870,000 tons had moved into trade channels. No figures were available from the remaining 10 States. The 38 States estimated that more than 615,000 tons of scrap remained on farms.

The Daily Digest

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Washington, D.C., April 23, 1942

AGRICULTURE DOES ITS JOB. Editorial in ~~3~~Sat. Evening Post, April 25: One of the really good jobs of organizing America's war production is the mobilizing of the nation's farm capacity. Thanks to the way it is being carried out, the American people are reasonably sure of having plenty to eat and wear, and there will be a large supply available for our allies. Farm production for war this time is a different affair from what it was in World War I days. The job of organizing it got under way much earlier. Demands made by the Lend-Lease program and the building up of our own armed forces made it necessary to step up production of certain foodstuffs a full year ago. Machinery existed this time to further such an effort. The AAA, price supports and other devices--whatever one may think of them ordinarily--gave the Department of Agriculture tools with which to stimulate and direct as well as to control production according to needs.

In the other war there was not much guidance of agriculture's output. Under the impulse of the slogan Food Will Win the War and comparatively high prices, farmers pushed to the limit the production of about everything they could grow. This time the effort is being made to promote the growing of things most needed, such as dairy products, meats, canning crops and oils and fats. Wheat, the big performer in the other war, is being held down, as there is a carry-over of about a year's requirements in both this country and Canada. It isn't easy to swing six or seven million farms into a production line. Farming is a long-time affair, adjusted to little-changeable factors of soil, weather, equipment, biological facts and the special aptitudes of the individuals on the land. But, considering the limitations, the response to the Food for Freedom program has paralleled that of industry--and more quickly. Total farm production broke all records last year. Farmers are being asked to break them again.....

The clamor of political leaders has blurred the real measure of agriculture's war effort. Under the leadership of Secretary Claude R. Wickard, a sound production program has been worked out and is in operation. Out on the land, millions of farm men, women and children are working long hours with precious little complaint. American farmers and their families will do the job set before them, weather and human limitations permitting, because they are that kind of folks. There probably will be a few shortages, but the American people will be the best fed of any in the warring countries.

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RURAL FIRE PREVENTION. A study in Iowa showed that a large percentage of rural fires are the result of a few easily preventible causes. Nearly all of the fire waste on farms is in connection with dwellings and barns. Much can be accomplished if flues and heating systems are in good shape and all hazardous roofs are protected by spark arresters on the chimneys. Well-rodded barns and careful management in haying will prevent barn fires. Dwelling fires occur primarily in winter while most barn fires occur in the summer.

Iowa at least has definite fire areas. It would be profitable to concentrate on such rather than to operate indiscriminately on a state-wide basis. Old persons, above 60 years, or young persons, below 10, are the most likely to be killed or injured by fire. The greatest number of deaths, injuries, and livestock losses from fire do not occur at the same time as the greatest fire waste nor from the same causes. The spring and early summer months are the most dangerous in regard to fire deaths and injuries in Iowa for the year 1940.

WPB RESTRICTS PRODUCTION OF CRAWLER TRACTORS. War Letter for Agriculture, April 17: To hasten production of large crawler-type tractors urgently needed for military and other uses, the War Production Board has ordered immediate and drastic curtailment of smaller sizes used principally in farm production. Between April 1 and August 31, 1942, manufacturers may manufacture 3,035 of the smaller crawler-type tractors in the 17 to 35 horsepower classes. After September 1 production of these smaller size tractors will be prohibited. Through efforts being made by the Department, it is expected that a reasonable number of these tractors will be released to farmers whose needs are greatest.

NPIP NATIONAL CONFERENCE JUNE 10-12: This year, instead of four regional conferences usually held, delegates of each cooperating State will meet in Chicago, to study proposed changes in the National Poultry Improvement Plan considered necessary because of the war. Cooperating State and industry members are confronted with a number of problems such as rationing of tires, shortage of suitable materials for manufacture of leg bands and wing bands, fewer men available for flock selecting and pullorum testing, flock and hatchery inspection, trap-nesting, and hatchery operations.

JAP EVACUATION CHANGES WESTERN PRODUCE MARKETS. Western Grower and Shipper, April: The evacuation of Japanese from vegetable districts of the Los Angeles Basin and the Guadalupe-Santa Maria section may result in a considerable change in the source of supply of certain vegetables for the Los Angeles market--which means the southern California markets. During the past several months, Imperial Valley has been putting carlot shipments of carrots on the Los Angeles market. The lettuce supply of Los Angeles has, of course, always come "dry pack" from the Guadalupe district and Imperial and Yuma, but there is a probability that Los Angeles will again become a market for ice pack. Several of the large wholesalers in Los Angeles are going afield for other types of vegetables, particularly celery and other crops which have been grown in large quantities in this area. While they are particularly anxious to secure supplies to bridge over expected shortages for a short period this summer, they feel that there will be a new and permanent market for some vegetables from outside districts as a result of the evacuation program.

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PACKAGING PROBLEMS. Food Industries, April: Many food packagers are substituting other materials or containers for those that are scarce or no longer available. More glass will be available for food packing this year and in 1943 than in 1941....From Switzerland comes a package called the "zipper" container, made of heavy, stiff wax paper. Stitching around the top, to which a small metal button is attached, serves as a means of opening the container....Another container is known as the "bandcan" and is made with fiberboard walls and metal ends that can be hermetically sealed. Special coatings on the inside prevent metal contact with food and is used where the process is pressure cooking rather than immersion....

Specially treated waxed paper containers have been used extensively in other countries for many years. Honey, sirups, jams, jellies, meat, and fish are a few of the products packaged in this type of container....Wood is again coming to the fore as a material for food packages. Some concerns are using wood in place of solid fiber shipping containers. Dairies are going back to wooden bottle cases in place of metal cases. Bakeries are substituting returnable wooden crates for fiber cases....Prefabricated, prelined containers have high protective characteristics and are suitable for packaging a variety of both dry and semiliquid food products.

GEESE AND GOOSE-STEPPERS. Butchers Advocate, April 15: "More Geese Will Help To Defeat The Goose-Steppers" is the new motto of Illinois poultry producers. In 1939 this country imported more than 6 million pounds of crude feathers valued at more than 2 million dollars, for use in pillows, bedding and upholstery. The largest importer to this country, Hungary, shipped the United States 474,420 pounds valued at \$345,049, and almost as much came from France. Other goose products imported from Central Europe before the war were smoked goose breast, and goose liver.

GLASS CONTAINERS FOR FOOD. Milk Plant Monthly, April: Glass is being cast to fill one of the biggest jobs of the war this year as millions of jars, bottles, glasses and cups take over America's civilian canning needs, reports the War Production Board. There is no glass shortage now to hamper producers in their efforts to get the jars and bottles rolling as they have never been produced before. But there is a shortage of time and machines that necessitates the use of all possible means of increasing production in an industry already working on a three-shift basis.

One expected change is to larger containers. The glass saved in moulding large capacity vessels can be used to cast into additional receptacles. A half-gallon of milk, when delivered in half-pints, takes 64 ounces of glass to make the containers. If the delivery is in pints, only 52 ounces of glass are needed and if quart bottles only are used, the glass weighs only 35½ ounces. A single container for the half-gallon weighs exactly half as much as the half-pint bottles handling an equal volume.

April 23, 1942

SURVEYING MAN POWER. Business Week, March 21: A national labor audit now under way in the railroad industry promises to be the precursor of similar canvasses under government auspices in other essential industries. The Office of Defense Transportation has sent to all rail carriers questionnaires which call for detailed estimates (by particular occupation) of shortages which now exist or are anticipated by July 1. The roads have also been asked to report the number of requests they have made for deferment of their employees by draft boards and the results. The Office of Defense Transportation will seek similar information from trucking companies, bus carriers, pipelines, Great Lakes carriers, barge operators, and air transport lines. They may be the first group to face a civilian work draft.

TVA RESEARCH IN WAR EFFORT. Business Weekly, April 11: TVA already operates laboratories, pilot plants, and commercial-sized chemical plants. Research there produced new phosphatic fertilizers, sent to 47 states for farm tests. By minor changes, an existing plant is being adapted so that almost its full capacity may be used for producing elemental phosphorus. To this, the new plant on the Gulf of Mexico will be added, if the President's recommendation is approved by Congress. Another unit will also be a two-purpose plant; for manufacture of calcium metaphosphate, which is one of the TVA-developed fertilizers, and for production of phosphorus for use as a munition. The two plants together will be capable of producing in a year 170,000 tons of calcium metaphosphate for the land, or 33,000 tons of elemental phosphorous for war.

Like the other TVA processes, the production of metaphos does not require sulphuric acid. It is a heat process for which TVA uses electric furnaces. Sulphuric acid is essential in the manufacture of the ordinary superphosphate of industry and most of its concentrated superphosphate. But now the supply of acid for fertilizer is threatened. The production of certain explosives and the intensification of the war industries is taking so much sulphuric acid that the prospect is for a curtailment of superphosphate manufacture this year. Late in 1940 the War Department notified TVA to prepare for production of explosives at an existing plant. Plans were also approved for construction of a new and modern synthetic ammonia plant to supplant the production of ammonia by the old cyanamide process in the plant as originally constructed during the previous war.

SOUP TO BE CANNED IN TIN PLATE LIMITED TO 21 KINDS. Victory, April 14: An amended order on tin plate and terneplate will limit packing of condensed soup in tin plate, after June 30, to the following kinds: chicken, chicken gumbo, chicken noodle, gumbo creole, consomme, bouillon, tomato, asparagus, spinach, fresh green pea, clam or fish chowder, Scotch broth, vegetable, vegetable-vegetarian, pepper pot, oxtail, mock turtle, country style chicken, corn chowder, beef, vegetable beef. Packaging of soups, broths, and chowders other than those may not exceed 25 percent of the 1940 pack before June 30, after which packing of such products in tin plate is to be discontinued.

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THE DAILY DIGEST

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Agriculture.-----

Washington, D. C., April 24, 1942

ANNUAL LEAVE LIMITED TO 14 DAYS: Personnel Circular No. 107 (Re-
vision I) Supplement No. 1: In view of the intensified activities of the
Department caused by the war, no employee shall be allowed leave for a
period of more than 14 work days at any one time. For this purpose,
Saturday is considered a full work day. An employee may be granted annual
leave for a period in excess of 14 work days only with the express approval
of the chief of bureau concerned....Annual leave being taken prior to
separation from the service or prior to a period of non-pay status will
not, of course, be limited to 14 work days. Furthermore, annual leave
being taken to cover a period of extended illness is not affected by the
foregoing.

S.C. LAW ON ENRICHED BREAD, FLOUR. American Miller, April:
Effective Aug. 1, 1942, all commercially produced white flour and bread
sold in, or shipped to, South Carolina must be enriched. The law was
passed by unanimous vote last month and approved by the governor. Al-
ready, predictions are current that at least six other southern states
will use the new South Carolina law as a pattern for mandatory enrichment.
Unenriched flour may be sold to bakers or blenders only if they supply an
affidavit proving intent to supply enriching media before consumers are
offered the final product. An exception also is made to allow the small
miller to grind wheat for wheat growers on toll basis--but the exchange
miller cannot legally sell any flour "toll" unless it is enriched.

DEVICE MEASURES INSECTICIDE TOXICITY. American Miller, April:
Special testing devices have been constructed by various manufacturers
and college stations to determine insecticide toxicity. The latest
toximeter has been developed by the New Hampshire Experiment Station, for
the study of contact insecticides. In the spray testing cabinet constructed
by the University of New Hampshire, variables in the study of relative
toxicity of various chemical contact insecticides have been largely elim-
inated. Their toximeter consists of a cabinet. It makes possible the
avoidance of stray air currents during the period while atomized liquids
are being applied. It enables the experimenter to evacuate spray mists
immediately after an application.

WEEK'S WEATHER FAVORABLE TO FARM WORK. Weekly Weather and Crop Bulletin, April 22: Warm weather with much sunshine in interior valleys and cessation of rainfall in a large southeastern area made conditions much more favorable for agriculture. In the interior vegetation responded rapidly, and field operations were active, although it continues too wet on lowlands. In the South farm operations made excellent progress. In Texas, recent rains greatly improved the outlook and vegetation is responding rapidly, with truck gardens, small grains and grass showing much improvement; the lower Rio Grande Valley still needs moisture. In the southwestern plains there was too much rain, with considerable local flooding and soil erosion. While recent rainfall has been heavy in most central and southern States east of the Rocky Mountains, a considerable north-central area has been persistently dry, with some stations recording the driest April in 40 years. Rain is needed from Iowa northward and in some other central-northern sections; a central-eastern area, comprising eastern Tennessee, North Carolina, Virginia, and West Virginia, would benefit by a good, warm rain.

In the South crops show considerable improvement and spring planting has advanced rapidly. Frost was reported generally as far south as Kentucky and Virginia, but little harm is apparent, although peaches probably have been damaged in Virginia and in the southern Ohio Valley. Otherwise the fruit outlook continues favorable. Ranges are doing well in western grazing sections, and livestock remain mostly in good condition; there was some severe local loss of lambs from poor range feed in parts of Wyoming.

The weather was favorable for winter wheat and good growth is reported. In much of the eastern belt fair, sunny weather was favorable and, except on some wet lowlands, wheat shows improvement. In the western belt rapid growth is reported possibly too rank in some places. Spring wheat seeding made good progress. Conditions were generally favorable for oats and barley. Rice planting is nearly done in many parts of Louisiana.

With warmer, sunny weather in principal corn-producing sections, preparation for planting made good progress although in a considerable northwestern area, especially Iowa, soil is turning cloddy and rain is needed. Heavy rains continued in much of the western Cotton Belt, but in central and eastern sections the week was mostly fair. Planting made better progress in central and eastern States, although in some central districts low ground is still too wet for working. In the western belt, planting was mostly inactive, awaiting dry weather.

HOLSTEIN-FRIESIAN HEAD ADVISES LATIN-AMERICA. Agriculture in the Americas, April: Responding to a request of Holstein cattle breeders in Latin America for advice in perfecting their herd registration system, Alvin C. Oosterhuis, president of the Holstein-Friesian Association of America, is now traveling in the southern Americas. He is visiting Central America, Colombia, Ecuador, Peru, Bolivia, Argentina, and Venezuela. First reported result of his trip is organization of the Association of Holstein Cattle Breeders of Guatemala.

BRIGHTMORE, NEW STRAWBERRY. Better Fruit, April. A new, disease-resistant strawberry variety suitable for use by the frozen pack, barreling and preserving industry is being introduced for more extensive field trials by the United States Department of Agriculture in co-operation with the Oregon Experiment Station. The new variety, called the Brightmore, is described in a new station circular of information No. 263, available from the state college at Corvallis.

TO USE FEWER SHIPPING CONTAINERS. Business Week, March 14: Long-standing gripe of the produce trade and of the railroads has been the tremendous variety of containers used for shipping to market fresh fruits and vegetables. Most of these boxes, crates, and baskets are of sawed wood or veneer, though the proportion of paper-board has risen in recent years. Before it can be utilized for rail shipments, a produce container must be accepted by the Freight Container Bureau of the Association of American Railways, and accordingly incorporated in the container tariffs. Traditional policy of the bureau was that if a submitted container would load economically and carry the contents safely to destination, it must be admitted to use. Package styles and sizes multiplied. There are 554 authorized containers in the four tariff territories, and these include perhaps 700 different specifications.

Last weekend, sixty-odd representatives of growers, shippers, distributors, and government bodies gathered in Chicago at the call of the United Fresh Fruit and Vegetable Association to adopt a nationwide program of simplification. The conference divided into three groups, citrus fruits, deciduous fruits, vegetables; brought in recommendations to eliminate between 301 and 355 of the 554 authorized varieties. The citrus people thought they could eliminate 14 shapes; the deciduous group, 131; and the vegetable interests, 156. Additionally, there are 54 more subject to probable elimination. The Freight Container Bureau is committed to placing the proposed eliminations on its next docket (coming up between April 15 and May 1).

SWISS MILK STATISTICS. Milk Plant Monthly, April: Switzerland's milk statistics for the year 1940 have just appeared. They show that there were 926,400 cows in the country in 1939, at the outbreak of the second World War. This figure has receded to 910,005 in 1940, reports the Official Information Bureau of Switzerland, at New York. The report is interesting for two reasons: 1) because Switzerland is the producer of the famous hard cheese going by its name, and 2) because Switzerland is specially interesting at the present time as being the oldest democracy in the world, its independence and democratic organization having endured for 650 years.

The volume of milk in the market has decreased 1.27% in 1940. In that year it amounted to 55.36 million cwt. compared to 56.86 million cwt. in 1939. The total value of milk production in 1940 rose to 632 million Swiss francs, compared to 572 million Swiss francs in 1939. Butter production in 1940 was 25,000 tons, compared to 28,800 tons in 1939. Condensed milk production amounted to 14,000 tons. The total value of exported milk products amounted to 63,750,000 Swiss francs in 1940. Imported milk products represented a sum of 14,240,000 Swiss francs.

INTER-AMERICAN COORDINATING COMMITTEE. Agriculture in the Americas, April: To assure maximum effectiveness of government activities aimed at increased production in the Western Hemisphere of the raw materials of war, the Inter-Agency Coordinating Committee on Strategic and Critical Materials has been established. Represented are the Board of Economic Warfare, War Production Board, Federal Loan Agency, and Departments of State, Interior, and Agriculture. Chairman is Paul H. Nitze, Associate Director of the Board of Economic Warfare's American Hemisphere Division, which also functions as a part of the Office of Inter-American Affairs. Agriculture's representative is R. H. Allee of Foreign Agricultural Relations.

FROZEN FRUIT, VEGETABLE PRODUCTION SETS RECORD. Ice and Refrigeration, April: Production of frozen fruits and vegetables in the Northwest reached a new high in 1941, according to compilations by Western Canner and Packer. Totals from reports of individual packers show that the Washington-Oregon pack of frozen fruits totaled 97,530,431 lbs. during this past season, compared with 78,250,845 lbs. in 1940; 59,039,362 lbs., in 1939, and 58,554,877 lbs., in 1938. The 1941 output of frozen vegetables was 44,811,523 lbs., compared with 29,079,519 lbs., in 1940; 20,304,646 lbs., in 1939, and 29,660,222 lbs., in 1938. The greatest increase in fruits was in sweet cherries, peaches, black raspberries and strawberries. Among the frozen vegetables, every item, except cut corn and corn on the cob, was larger in 1941 than in 1940.

SOUTHERN AGRICULTURE IN A CHANGING WORLD. In an address (in Fertilizer Review, Jan.-Feb.-Mar.) before the Association of Southern Agricultural Workers recently, the Director of the Mississippi Experiment Station said: An appraisal of commodities in which we now face a shortage clearly indicates that American agriculture, and particularly southern agriculture, has a field of greater usefulness to the nation than it has been permitted to occupy. Hundreds of millions of pounds of oils and fats can be supplied from cottonseed, soybeans, peanuts, and animal products. The billion pounds of coarse fibers can be replaced very largely by cotton. Enormous importations of silk can be replaced by cotton, wool, and synthetic fibers. Large supplies of oil cake and meal can be supplied by American oilseed products. Already there is a thriving tung industry in the lower South, and we are increasing production of linseed and other oils. The hundreds of millions of pounds of root starches used largely for the manufacture of remoistening gums can now be replaced only in part by sweetpotato starch, but a market exists for the product of something like 100 factories similar to the nation's sweetpotato starch factory.

"POLY-FREEZING" OF VEGETABLES. Market Growers Journal, April 15: Polyphase--a new quick freezing process developed at the University of Texas may affect our methods of handling vegetables. The process is very rapid, simple, low in first cost, economical in operation. Proper development of this quick-freezing process should help the vegetable grower to avoid the disaster of market gluts and make it possible to spread income more evenly over the year. A complete report on the new process was published in the December and January issues of Food Industries.

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DEHYDRATED BEEF FOR LEND-LEASE. AMA War Board Letter, April 18: Agricultural Marketing Administration purchase section has been working with meat processors and Beltsville Research Center of USDA for some time developing a dehydrated beef product to meet Lend-Lease requirements. A product in powdered form has been developed and purchases are expected to be made shortly. Not so far along is study of dehydrated pork. Initial purchase of up to \$100,000 of dehydrated beef powder is planned.

SYNTHETIC RUBBER PROGRAM. Conservation, March-April: A plan was put into effect by the Rubber Reserve Company to lay out four plants suitable for the production of 40,000 tons a year of Buna-S synthetic rubber, equipping these plants to make an immediate production of 10,000 tons annually. This type of rubber was selected because of the availability of its raw materials, probable cost, and its suitability for tires. The groundwork done in connection with the 40,000-ton program has been of incalculable value in laying out operations on a larger scale, but plants having a total of 400,000 tons' capacity are still only an objective. Estimates of the time required to complete this program have varied from one and one-half to two years. The outlook is that by the end of the present year the total rate of synthetic rubber production in the country may have increased to as much as 100,000 tons a year. Whether or not an additional 300,000-ton capacity will have been installed by the end of 1943 depends to a considerable extent upon the availability of construction raw materials, and of the engineers and labor required to build the plants.

CONSERVING FREIGHT CARS. Farmers Elevator Guide, April: The use of freight cars for "wheelbarrow service" between industries in the same city or in nearby cities, is a wasteful practice that must be curbed, says Joseph B. Eastman, Director of Defense Transportation. During 1941, the average weight of such loads within terminal districts was only two tons, and between cities 5.3 tons. Mr. Eastman now directs that the railroad refuse to handle any cars containing less-than-carload freight (except military materials) unless they contain at least 6 tons. This is a further step in the direction of conserving the supply of cars, a movement given a good start in 1941, which will be pushed harder in 1942.

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MILK POWDER INCREASINGLY IMPORTANT. Dairy Record, April 15: Highly significant was the statement made by O. E. Reed, Chief of the Bureau of Dairy Industry at Michigan State College recently to the effect that the government is planning to make large purchases of dried whole milk during 1942 for the Army, Navy and Lease-Lend. Doctor Reed amplified his remarks by pointing out that the dried product requires less shipping space and saves a large amount of tin plate.

There have been reports that the British prefer the canned milk for home consumption, and we have no doubt that government officials of this country would like to meet with their requests--if they did not interfere with the war effort. However, tin and shipping space are critical war commodities, and preferences must give way to logic. Officials of both the American and British governments are, no doubt, viewing the matter in the light of foods of high nutrition which occupy the least amount of space on cargo ships and consume a minimum of vital war materials.

FARMING IN EVACUATED WEST COAST AREAS. FSA, San Francisco, office release, in Southern Florist, April 17: With the issuance of the Army evacuation order, on March 13, special field agents of the Farm Security Administration were rushed into West Coast farming areas. They were instructed to obtain a registration of all Japanese and Japanese-American land holdings, to supervise and referee contracts between the owners and qualified American operators, and to plan future production after the properties were transferred. These measures were part of a general program to maintain a normal volume of food from West Coast farms. About 93,000 people of Japanese ancestry faced evacuation, under the Army's order, the bulk of them in California and the remainder scattered through Washington, Oregon, and southern Arizona. These farmers owned and operated nearly 6000 farms, covering about 200,000 acres, also largely in California.

RECORD WOOD FURNITURE PRODUCTION FORECAST. Business Week, April 11: Wood furniture manufacturers have plant and machinery sufficient to permit a 10% to 15% expansion in output without too much strain; their growing volume of war work on air-plane parts, navy rafts, etc., is not immediately encroaching on regular civilian output, and since skilled woodworkers are not readily trained for metal-working, they are not in great danger of losing their best men. Shortages of materials can be overcome. Most types of wood, basic raw material, are likely to continue plentiful, and wherever finer woods do run short - as with teakwood from the Far East, and perhaps mahogany from Central America and the West Indies --veneers and domestic woods can be substituted. Although dwindling stocks of nails, glue, and varnish are hard to replace, production can be maintained by using more wood pegs, flour, or other pastes, and oils and other finishing materials. In upholstery work, hard-to-get burlap (from India), metal springs, and rubber may be replaced with hair and cotton stuffings; and as the pinch on wool, mohair, rayon, and other fabric fibers for coverings tightens, manufacturers will turn to more velours, home-spuns, and other cottons.

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SOUTH AMERICAN NUTS AS SOURCES OF OIL. Scientific American, May: In South America are a number of natural nuts that yield oils chemically equivalent to coconut oil. All of those nuts which yield sufficient quantities of oil to warrant commercialization have hulls that are hard to crack. Crushing the hulls bruises or crushes the kernels, which contain the oil, thus spoiling the nut for further processing. There have been small quantities of oil from the babassu and cohune nuts placed on the market by South American companies, obtained through the long and tedious process of cracking the hard shells by hand and then pressing the oil from the kernels. But since hand cracking proceeds at a rate of about 130 nuts per hour, the oil output is exceedingly limited.

Yankee ingenuity has gone to work on mechanical crackers for these tough nuts, with a considerable degree of success. Several crackers have been devised that will crack the hulls at a high rate of speed, leaving the kernel intact. With these available, and with increasing co-operation between the United States and its southern neighbors, there is every reason to believe that South American nuts of a variety of species will soon aid greatly in replacing the coconut. Here is a definite trend in the vegetable oil industry which will be carefully watched by all other industries that have heretofore been dependent on oils imported from the Far East.

SHRINKAGE IN MEAT. National Provisioner, April 18: The Hormel Food Foundation, University of Minnesota, has started an important series of investigations on the shrinkage of meat. The first report, dealing with the way meat loses water when exposed to air of low moisture content, appears in Food Industries for February. As expected, rate of loss by the meat increased greatly with increase in temperature. However, the final loss in weight was affected very little by the temperature of drying. The water lost during shrinking quits the samples of meat through the surface, but the loss is not through "drip," that is, a falling off of water droplets in a vertical direction. Loss occurs through evaporation and, therefore, depends on the exposed meat surfaces.

OUTLOOK FOR METAL CONTAINERS. Food Industries, April: Metal containers of the rigid type, as contrasted to foil containers, present a complex situation that is particularly serious for the remainder of 1942, but is not nearly as bad as had been anticipated when the tin conservation order, M-81, was imposed by the War Production Board. In brief, there is expected to be a delay in replacing tin-coated steel containers (where their use is prohibited by M-81) by the various forms of tinless containers, but this delay is of predictable duration instead of being hopelessly indefinite.

Bare-steel and enameled-steel containers will become available in a matter of weeks or months where their use is technically possible, such as for packaging dry products. A moderate amount of these steel containers is available at present. For packaging dry products, a reasonably quick shift from tin-coated to tinless steel, enameled or bare, can be made. Yet it should be realized that such changeover must perforce be made gradually, not suddenly for even though "black" plate is in moderate use today the conversion of many lines of can-making machinery from tin-coated steel to bare steel or enameled steel requires a definite amount of time.

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FIELD SHELLING OF CORN. Article in Agricultural Engineering, April: A combination picker-sheller shows promise of reducing the man-labor needed to harvest corn. The lower cost of the field shelling method as compared to present methods for areas greater than 45 acres, results from combining the picking and shelling operations, reduced hauling costs, greater capacity of the machine, and a smaller power requirement. The greatest portion of the harvesting losses in fields yielding up to 66 bu. per acre was caused by the snapping rolls and gathering points. The high moisture content of field corn during the harvest season and the lack of satisfactory storage or drying facilities at present, necessitates that field-shelled corn be sold from the field at a low market grade. Foreign material and damage caused by the operation of the machine did not result in a reduction of market grade.

WPB RESTRICTS USE OF ROTENONE. War Letter for Agriculture, April 17: WPB has issued an order prohibiting the use of rotenone or products containing rotenone (except those already prepared) for treating cotton, tobacco, cranberries, eggplant, onions, peppers, sweet corn, and such crops as cucumbers, melons, squash, and pumpkins. Use of rotenone in household insecticides is also prohibited. Imports of rotenone from Malaya and the Netherlands Indies have been cut off; Latin American sources are not expected to supply the country in sufficient quantities to overcome this loss. In all cases where rotenone is prohibited, there are substitutes to give adequate protection. USDA is now working on recommendations as to such substitutes. Pyrethrum and nicotine sulfate are available.

HARVESTER FOR GUAYULE. Implement and Tractor, April 11, contains an item on a guayule harvester consisting of a hay chopper-silo filler with a special pick-up attachment. The shrub is plowed up when ready for harvest and the harvester picks up the plants, chops them and blows the chopped shrub into the trailer. The chopped guayule is then ground under water in a pebble mill.

The rubber content washes free, floats to the top in the form of rubber "worms" and is skimmed off, while the plant fibre sinks to the bottom. The rubber "worms" are then spread on trays, dried under vacuum, and finally hydraulically pressed into 200 lb. blocks. Guayule plants weigh about 5 lbs. each and average 8,000 plants to the acre. They contain about 23 percent rubber. In harvesting wild guayule in Mexico, special stationary cutters are used.

LABOR-SAVING METHODS IN VEGETABLE GROWING. Market Growers Journal, April 15: Vegetable growers need devices or methods of getting more work done in fewer hours at lower cost. Among such devices are a deep box on a sled, drawn by a single horse between rows for harvesting sweet corn; the placing of baskets at appropriate distances along an asparagus row, each to receive a handful as it is accumulated and then to be set over to the next row; the use of a table instead of the floor for bunching vegetables. Then there are mechanical devices such as skid-platforms and jack-trucks for moving goods around the packing room, simple sorting tables and conveyor belts, the smaller washing and tying machines and so on up to the more elaborate equipment that is used in larger operations.

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U. S. Department of Agriculture

The Daily Digest

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Washington, D. C., April 28, 1942

DEFERMENT OF EMPLOYEES FROM MILITARY TRAINING AND SERVICE. Personnel Circular No. 100 (Revision I): Requests for occupational deferment of employees under the Selective Training and Service Act should be submitted to the Advisory Committee on Selective Service of the Department, established in Secretary's Memorandum No. 877. Responsibility in each bureau for requesting deferments should be fixed in one place to insure uniform and effective handling.....The Committee is anxious to be fair and to insure an over-all, uniform policy throughout the Department.

Requests for occupational deferment should include the following information: 1. A statement to the effect that the employee has no dependents. 2. A statement that the employee has no obvious physical disability which in itself would bar him from military service. 3. The order number of the employee on his local selective service board, and his present classification. 4. A statement of duties and status of the work at the time of the request for deferment. 5. Specific reasons for requesting deferment. a. Ability to replace the employee with another person satisfactorily qualified or skilled in such activity. b. The loss of effectiveness in such activity caused by employee's removal. 6. Length of time for which deferment is requested.

TEST NEW CHEMICAL AGAINST POISON IVY PLANT. Science Service release, April 13: Backyard gardening or picnics may be freed of poison ivy hazard if ammonium sulfamate, a new chemical tested at the University of Wisconsin for killing the plant, proves successful. It was tested last year by men who mixed it at the rate of one-half pound to one pound per gallon of water. They applied about a gallon of spray to each 100 square feet of orchard area last June. The chemical probably would not be safe for use near lawn grass. If the poison ivy fails to come back this season, the ammonium sulfamate treatment will be considered successful.

NEW SOURCES OF INDUSTRIAL ALCOHOL. Science Service release, April 18: America's war effort will have "vast new sources of industrial alcohol, essential in the manufacture of smokeless powder and other munitions," the American Chemical Society announced recently at its 103d meeting. To supply demand now running 300% above normal because of the war, chemists offer three achievements:

1) Discovery of how to break down non-fermentable sugars in corn, wood and paper mill waste liquors, by means of enzymes produced by fungi, may lead to a new industry producing needed alcohol from hitherto unused materials...2) Demonstration that the common bread molds can be used in

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converting grain into alcohol, with greater speed, economy, and efficiency than the customary malt from sprouting barley.....3) Development of a continuous fermentation process for molasses that makes one apparatus do the work of ten.

ARSENIC CURES SELENIUM POISONING. Science Service release, April 16: A literal case of poison against poison was laid before the American Chemical Society by workers of the South Dakota Experiment Station. In parts of the Northwest, selenium poisoning is a problem in the livestock industry. The poisonous element exists in the soil, gets into plants which the animals eat, and cripples or sometimes kills them. The station workers found that selenium poisoning can be stopped by giving the animals very small amounts of arsenic, in their food, drinking water, or salt. Concentrations as low as 12 to 25 parts per million were found effective in treatment of dogs, chickens and cattle.

CANNERS ASKED TO RESERVE PART OF 1942 PACKS. Food Industries, April: Canners of fruits and vegetables restricted by Tin Conservation Order M-81 must file with the Director of Industry Operations, WFB, a report showing the amounts packed in 1940. Those who packed these products in 1941 but not in 1940 must report 1941 production. Within 15 days after completion of his 1942 pack, the canner is required to report 1942 production. During the 1942 canning season and immediately afterwards, the foods reserved for the government will be inventoried and inspected. Canners must set aside the pack reserved for the government for 60 days following the date of filing the report on the pack. At the end of the 60-day period, if the canner's pro rata share of canned foods has not been allotted, he may file appropriate notice with the Director of Industry Operations to the effect that such canned foods are being held for another 30 days and that if they have not been contracted for at the end of that time he intends to sell them to the civilian trade.

CIGARETTE FIRES. Conservation, March-April: Studies by the Bureau of Standards show that in 1937, 54,000 cigarettes were lighted every second and were thrown away at an average length of one and one quarter inches and then burn 8.5 to 12 minutes. Six out of nine burn full length. On a dried grass pad with a wind of three miles an hour, 85.3 percent of the cigarettes ignited the grass. Average time of ignition, five minutes. On Douglas fir duff in Washington, 20 tests set 19 fires. On rotted Douglas fir wood, 10 tests set five fires, but the relative humidity was above 25 percent which is the critical point.

N.Y.C. FOOD SUPPLY PROGRAM. Butchers' Advocate, April 15: The new New York City Commissioner of Markets, D. P. Woolley, says plans have been made for keeping up a constant flow of food supplies into New York City in case of enemy attack. Using the Washington Street market as an example, he pointed out that should that market be bombed or set on fire, control stations would issue re-routing instructions to trucks bound for that market. These would be sent to whichever terminal had been designated as first alternative, unless that, too, was affected by enemy action, when the second, third or fourth alternatives would be used. The plan is far-reaching, and provides for instructions to be given employees, truckmen, retailers and anyone with whom the wholesaler or packer does business.

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Arrangements also will be made to dispose of fresh meats in any one warehouse which may be affected by power stoppage. Should refrigeration be stopped in one district, meat will be sold from that district exclusively until the supply was exhausted, to prevent waste from spoilage.

U. S. STRENGTHENS LATIN AMERICAN ECONOMIES. Business Week, March 21: Several Latin American countries have approved a number of long-term economic projects that Washington is inaugurating with no more delay than is necessary to make certain that each project is soundly planned. The most spectacular of the projects is the deal Washington recently made with Rio. This provides: (1) Export-Import Bank credit up to a total of \$100,000,000 to assist Brazil in building up defense production; (2) long-term order by the RFC Metals Reserve Co. for fixed quantities of iron ore from Brazil's high-grade Itabara deposits; (3) additional lend-lease aid for Brazil; (4) 5-year contract from the RFC Rubber Reserve Co. to buy all available rubber from the Amazon valley.

Following announcement from Havana that the Cuban government, with the aid of credits obtained in Washington, is preparing to establish a central bank, the United States began upping its purchases of Cuban sugar. This was followed by Washington's announcement of the creation of an Anglo-American Caribbean Commission which will begin at once a social and economic survey of the region. The scheme is already under way in Puerto Rico where the garrisoning of increasing numbers of United States troops has already forced officials to provide more food to be supplied locally.

The Argentine Trade Promotion Corp., an organization in which the Argentine government provides the capital and private business provides merchandising experience, has just commissioned the Armour Research Foundation of Chicago to make an industrial survey of the Argentine to determine what raw materials it can most profitably develop both for home industries and for the export trade. Argentina set up its Trade Promotion Office in New York last summer when the loss of its main European markets made it important to find new outlets in the United States for such products as wine, champagne, cheese, eggs, packinghouse byproducts, and leather goods.

TESTING TRACK SCALES. Farmers Elevator Guide, April: The annual report of the National Bureau of Standards indicates that the ownership of track scales in the United States is almost evenly divided between railroads and industry--3,400 by railroads and 3,350 by industries.

----- About a thousand of these are tested by the bureau every year, and the others--especially those owned by railroads--are tested by test-weight cars by the owning roads, these test-weight cars in turn being checked by the bureau. The proportion of track scales tested by the bureau during the year, that showed inaccuracy beyond admitted tolerances, was roughly one in five, whereas in 1940 it was more nearly one in six.

LABELS FOR SHEETS AND PILLOWCASES. Consumers' Guide, April 1: When OPA fixed maximum prices that manufacturers could charge for bed "linens," it set them on the basis of 4 types of grades of sheets, pillowcases, and sheeting, with minimum standards for each type, as follows:

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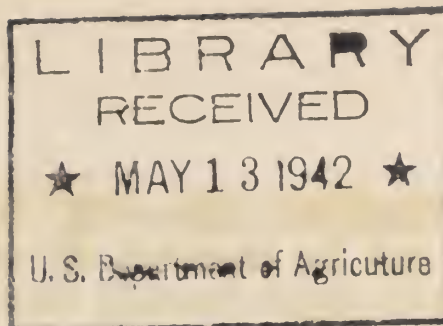
<u>Type</u>	<u>Threads per sq.in.</u>	<u>Ounces per sq.yd.</u>	<u>Breaking strength</u>	<u>Maximum sizing</u>
180	180	3.6	60	4%
140	140	4.6	70	4%
128	128	4.0	55	6%
112	112	3.7	45	10%

Each sheet or pillowcase sold by a manufacturer now must bear a label which tells the type and size of the sheet or case and states whether or not it's a second. If the sheet or case doesn't come up to the specifications for its type, it must be labeled substandard. Since OPA's price ceilings apply only to manufacturers of bed "linens," the retailer doesn't have to keep the label on the sheet when he offers it for sale. But consumers should look for these new labels when they buy. Each type of sheet covered by OPA's orders now must meet the minimum specifications for type before the maximum price may be charged. Sheets that don't measure up to specifications must be sold at a discount.

BRITISH AGRICULTURAL ENGINEERING INSTITUTE. Agricultural Engineering, April: The Institute for Research in Agricultural Engineering established several years ago at the University of Oxford in England will, according to "The Implement and Machinery Review" of London, be taken over by the British Ministry of Agriculture and renamed the "Institute of Agricultural Engineering." In the new arrangement, general direction of the work will be under the auspices of the Agricultural Machinery Development Board. Apparently the testing of agricultural implements and machinery will continue to be one of the important activities of the Institute.

IMPROVED FREIGHT CAR CONSTRUCTION. American Miller, April: Experiments recently conducted by several railroads point towards eliminating dead space between the end inner wooden lining and the outer corrugated steel end lining of box cars. Cereal products tend to accumulate in this dead space, thereby offering an ideal breeding space for all species of insects attacking stored cereal products. A material has been developed which consists of a gilsonite asphaltum base fluxed with a petroleum asphalt which is mixed with granulated cork. Experimental cars have now been in carrier service for over 1 year. All types of loadings have been hauled in these cars.

SWEET CORN ALL SUMMER. Country Gentleman, April: At the Connecticut Experiment Station we have developed a series of sweet-corn hybrids of such different maturity seasons that they can be planted at one time and will mature over the period of a month. In addition, we have tested all the better standard commercial varieties. From these trials and the results of others in different parts of the country we are able to make specific recommendations for seven different seasons. The varieties we have sorted out of the many that are listed in seed catalogues are especially suited to the Northeast, although the three early hybrids named have yielded satisfactorily all over the northern half of the United States. We classified the maturity seasons as follows: Extra Early, Early, Early Midseason, Midseason, Late Midseason, Late and Very Late. The periods between the seasons are three to four days.



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BLACKOUT FABRICS. Canadian Textile Journal, April 10: Preparation and use of draperies and curtains for black-out purposes are discussed in a special bulletin recently issued by the American Cyanamid Co. Woven cotton cloth, rayons, acetate and even wool pieces are utilized for blackout purposes, dark shades such as black, navy, seal brown, dark green, maroon, and burgundy being recommended. Specific fabrics that have passed tests for black-out use include: cotton pile plush; army twill mercerized 8.2 oz. per yard; cloth heavy weight sateen; Silesia; black rayon face satin; soft sateen; bleached broadcloth mercerized 2-ply style. A two faced fabric can be made of dyed stock woven up so that the face will be a bright pastel shade while the back or portion facing the street will be black or another dark shade. Less suitable fabrics may be rendered opaque by the use of fillers and stiffening agents.

N.Y. STATION DEVISES PRECISION SPRAYER. Better Fruit, April: A precision sprayer and duster devised by the New York Experiment Station at Geneva make it possible to deposit fungicides on half an apple leaf, leaving the other half as a check. This aids in more rapid evaluation of the effectiveness of new spray materials for the control of orchard diseases. A brief account of the new technic appears in the last issue of Farm Research, the quarterly magazine published by the Experiment Station. Three different types of precision sprayers have been designed. For the most rapid testing of fungicides, particularly sulfur, glass slides are sprayed with the materials under test and the spore suspensions of the desired fungus are applied to the slides to determine the comparative values of different sprays. More reliable tests on foliage grown in the greenhouse are made with a horizontal type of sprayer which makes it possible to spray one half of a leaf, leaving the other half as a check.

SULFA DRUG FOR CECAL COCCIDIOSIS. National Poultry Digest, March 15: Experiments at the University of California indicate that sulfaguanidine, one of the newer sulfa compounds, may be of practical use in controlling outbreaks of cecal coccidiosis on poultry farms. Controlled trials on infected farm flocks will be necessary. Sulfaguanidine has not yet been released for general veterinary use and is at present costly. Chickens were found to be so tolerant to the drug that large doses in capsules or mixed with mash were given without causing symptoms of toxicity or death. However, toxic effects resulted from feeding mash containing sulfaguanidine to growing chickens continuously over 10-day periods.

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NARROWER ROWS--MORE CORN. Country Gentleman, April: An indication of what may be expected in commercial corn production through the adoption of western wheat-country methods is contained in a three-year experiment on a Central Illinois farm. Not only did corn production average 24.7 bushels per acre more under the new method but plowing and cultivation cost was reduced \$2.35 per acre. Each year one tract of land was handled in the conventional manner as to seedbed preparation and cultivation and the corn checkrowed in standard-width rows. For comparison, the drilled corn in rows 22 inches apart with kernels 18 inches apart in the rows. The corn was drilled 8 rows at a time. The rate of planting in the drilled corn gave a stand equivalent to four plants per hill in standard checkrow planting. Average yield of the checkrowed corn for the three years was 69.7 bushels per acre, and for the adjoining corn drilled in 22-inch rows, 94.4 bushels.

FILM ON NUTRITION PROGRAM. American Miller, April: The story of events leading up to the National Research Council's recommendation of enriched flour and bread and of the cooperation of industry in making enriched products available to the American people is told in "The Modest Miracle," a new film. Most dramatic episodes of the film show the work of Dr. R. R. Williams--first in the Philippines, where he worked with Capt. Vedder of the U. S. Public Health Service, then in Bell Laboratories back home, where he worked for 25 years before he finally isolated and synthesized vitamin B₁. Climax of the picture comes with President Roosevelt's call for a National Nutrition Conference.

MULCH FARMING. Editorial in Agricultural Engineering, April: Mulch farming promises increased yields and lower production costs without waste of soil. It protects soil against damage by wind and water, and it conserves moisture for crop production by increasing infiltration and retarding evaporation. Many call it "subsurface tillage"; others "stubble mulch" or "vegetative mulch". "Trashy tillage", "plowless fallow" or "trashy fallow", and "stubble-in" are older terms often used.

Previous attempts to apply the principles of mulch farming have been localized and only partially successful because of inadequate information and equipment. To make more effective use of crop residues we must have equipment that tills the soil with little or no coverage of residue and determine its proper application. The new tillers of the V or straight-blade type, moldboardless plows, listers, rod weeders, or cultivators with shovel and sweep adaptations, are such noncovering implements. Developing and safely introducing this initial tillage and weeding equipment and the complementary planting machinery needed to seed grasses, legumes, and grains through various mulches is an essential step in tooling for this new form of tillage.

ROLLING RESTAURANTS. Business Week, April 11: Trailer food trucks which can serve light lunches to as many as 900 men in half an hour, are in use in San Francisco Bay Area shipyards, and are soon to be in service at San Diego. The manufacturers claim that four of the trailers, which weigh about 4,000 lb. loaded, can be hauled by the average automobile, that closed trucks can be opened ready for service in three minutes. One end of the truck has a drawer-like arrangement that pulls out and forms a steam table; the other end forms a table for a cash register or miscellaneous

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items like candy and cigarettes. Each truck has four 5-gal. vacuum cans that will keep coffee hot for at least 12 hours, two 5-gal. milk cans with faucets, two cream dispensers, six wire baskets for sandwiches, and two sugar and spoon boxes.

FACTS ON FARMER COOPERATIVES. Farmers Elevator Guide, April: Data on cooperative marketing and purchasing by farmers began in 1863 when a purchasing association (still operating) was formed. Since that year 26,191 other associations have made their entrances on the cooperative stage. Of the total number 14,898 (56.9%) associations have made their exits and 11,294 (43.1%) were performing for a large total membership at the close of 1939. More than 81 percent of the associations of record were engaged in marketing, about 18 percent were supply purchasing organizations and a few were providing, on a cooperative basis, services such as accounting, publishing and printing, transportation, inspection, and warehousing for the organizations in the marketing and purchasing groups of their farmer members.

The 21,336 marketing associations handled many items, such as, grain, butter, cheese, milk, fruits, vegetables, nuts, livestock, cotton, poultry, eggs, wool, mohair, forage crops, tobacco, broom corn, beans, rice, teasels, etc. The number of enterprises in the various commodity groups were: Grain, dry beans, rice, 5,628; dairy products, 4,975; fruits, vegetables, nuts, 4,092; livestock, 3,564; cotton and products, 907; poultry, eggs, 482; wool, mohair, 289; and miscellaneous products and services, 1,399. Purchasing associations, number 4,856, were engaged largely in supplying their members with dairy and poultry feeds, fertilizer, dependable seeds, petroleum products, coal, farm machinery, and consumer goods.

INCREASED USE OF EXPRESS REFRIGERATORS, Ice and Refrigeration, April: A marked increase in variety of perishable commodities moving in its "refriger-ex" service has been noted recently by the Railway Express Agency. The system, which involves the use of refrigerated containers especially designed for (less than carlots) LCL movement in express service, was inaugurated early in 1939. The boxes, which are mounted on casters for easy handling, permit inside temperature, from below zero to levels above the freezing point and upwards. Dry-ice is employed as refrigerant for extremely low temperatures and regular ice for those of more moderate ranges. Quick-frozen foods and some serums, vaccines and medical supplies usually require below-zero facilities of the container.

The greatest traffic increases in the field, however, have been for products requiring the normal water ice refrigeration. A number of containers, for example, are assigned to the movement of blood donations, in hermetically sealed bottles, from Red Cross stations to the processing plant for production of dry plasma transfusion units. The containers have likewise been found advantageous for LCL express movement of ice cream, dressed poultry, frozen foods, fruits, vegetables and seafood, meat, hatching eggs, and a miscellany of other highly perishable products including serums, laboratory specimens and unexposed motion picture film stock.

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U.S.D.A. STREAMLINED FOR MORE EFFICIENCY. Food Industries, April: Complete reorganization of the Department of Agriculture, as ordered by the President, radically shifts the lines of authority. All of the research bureaus are now grouped together in the Agricultural Research Administration, which is directed by Dr. Eugene C. Auchter, former director of the Bureau of Plant Industry. The immediate advantage of the new group is illustrated by the program of committee work on meat dehydration. That program must be speeded to assist in getting for Lease-Lend the maximum production of dehydrated meat for our allies. The new committee is under the chairmanship of Dr. J. R. Mohler, who is chief of the Bureau of Animal Industry. Quick cooperation can be achieved at this administrative level without awaiting review by the Secretary of Agriculture or other high authority.

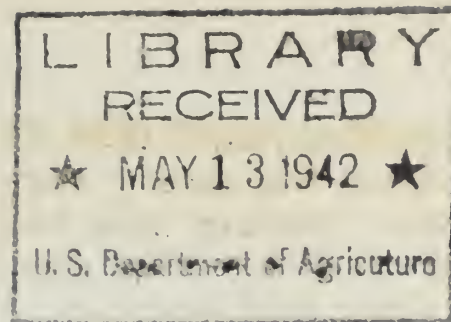
PLAN STUDY OF FROZEN FOODS. Ice and Refrigeration, April: A grant of \$2,215 to the department of bacteriology of the University of Washington to investigate the microorganisms which cause frozen foods to spoil has been made by the State Planning Council. In previous years there has been a large loss of frozen berries due to these microorganisms. With need to conserve food for war purposes, it is vital to avoid losses in this year's crop. The study will deal with the physiology of the microorganisms and the action on the frozen foods in an effort to find some method to combat the spoilage which has caused considerable loss in the frozen food industry.

WOMAN ON STANDARDS ASSOCIATION BOARD. Journal of Home Economics, March: The first woman and the first representative of any consumer group to serve on the board of the American Standards Association is Mrs. Pauline Berry Mack, director of the Ellen H. Richards Institute of Pennsylvania State College. She was nominated by the American Home Economics Association. The 17 other members of the board are mostly officials of large industrial concerns--among them an oil company, a life insurance organization, a railway, an electric company, an automobile corporation. The ASA has 42 "member bodies" (some of which include various trade associations and technical societies) and 27 associate members. Seven federal departments or agencies are listed among the member bodies.

CANADA RESTRICTS NEW WOOL USE 50 PERCENT. Canadian Textile Journal, April 10: Consumption of new wool in Canadian mills for civilian purposes during the six months from April 1 will be reduced to 25 percent of total 1941 consumption in civilian goods, according to a ruling issued by the Wartime Prices and Trade Board. The net effect of the new regulations will be to reduce consumption of new wool in civilian lines between 10 to 15 percent below levels prevailing in 1941.

PROMISING APPLE VARIETIES. Better Fruit, April: Promising new varieties of apples originated by the New York Experiment Station at Geneva are available for spring planting. A catalog of the new sorts may be obtained upon request from the New York Fruit Testing Association, a fruit growers' co-operative with headquarters at the station. The catalog lists 29 varieties of apples with the most promising of the station's introductions, together with several of the new red sports of standard varieties, such as Red Gravenstein, Red Duchess, Red Rome, Red Spy, etc. A few promising varieties originated elsewhere are also included, and two crab apples are listed.

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The Daily Digest

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in these items are not necessarily approved by the Department of Agriculture.

Washington, D. C., April 30, 1942

CALIFORNIA LEADS IN NUMBER OF COWS ON TEST. University of California Clip Sheet, April 22: For the fourteenth consecutive year California dairymen are leading the nation in the number of cows whose production is being checked constantly through dairy herd improvement associations. Analysis of figures released by the Bureau of Dairy Industry shows that the 113,510 cows now on test in California represent the largest number reported by any state. The cows are owned by 1,752 dairymen, who are members of 72 different dairy herd improvement associations. California not only leads all other states in the number of cows on test, but has almost one-seventh of all the cows reported under test. It is the only state which has more than 100,000 cows on test, a mark reached for the first time last year.

VEGETABLE DEHYDRATION A JOB FOR EXPERTS. Food Industries, April: To those who are considering dehydration as a method of preserving vegetables during the emergency, these words of caution are directed. It would be a great mistake to reason by analogy from the drying or dehydration of fruits, an art that is as old as history, to the dehydration of vegetables. A much different set of conditions must be faced in the successful dehydration of vegetables, and it is no job for an amateur.

Vegetable dehydration is subject to all the technical perils that have afflicted the vegetable freezing business. No sounder advice can be given to any food technologist who is working on dehydration problems in this field than to study the problems and experiences of the vegetable freezing industry. But quality disappears on storage in most dehydrated vegetables. They have a merchantable life that appears to have definite limitations for reasons not wholly clear today.

NEW COATINGS FOR CANS. Business Week, April 25: The Shell Chemical Company, at its San Francisco plant, is testing a plastic that will stand up under the 300-deg. heat used in canning processes, and that had successfully withstood 500 deg. Shell officials explain that it is in an experimental stage only and that it is made from materials that may be considered "strategic" and therefore limited for commercial use. Chemically, the coating material is known as "diallylphthalate." Basically, it is allyl alcohol, made from petroleum. The alcohol, mixed with a coal tar acid (phthalic acid) results in the new coating substance.

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NICKEL-A-QUART MILK IN WASHINGTON. Journal of Home Economics, March: Since SMA made 5 cent milk possible in Washington, D.C., in August 1940, white families that bought the 5-cent milk nearly tripled their purchases of fluid milk, and Negro families almost quadrupled theirs. Some of these families did not buy as much milk as they were allowed--also many eligible families did not buy any of this cheap milk at all. Such was the picture that 624 families gave agents of the Bureau of Home Economics about their milk-buying practices before and after 5-cent milk was available. Before the program started, these families were paying close to 13 cents a quart for milk. After milk went on sale for 5 cents a quart, the families that bought it stepped up average milk purchases by about 2 quarts a person a week. The white families bought 2.9 quarts a person a week as compared with 1.0 quart before; for the Negro families it was 2.5 quarts against 0.7 quart.

The effect of the low-priced-milk program on purchased fluid milk is only part of the story. Purchases of other milk products and milk obtained free, as gifts, as half-pints with school lunches, and through distribution of surplus foods need to be figured in with purchased milk. Including milk in all its forms, the white families that used the program averaged 2.5 quarts of milk a person a week before 5-cent milk was available and 4.1 quarts afterwards. Similarly, the Negro families moved up their consumption from 1.9 to 3.5 quarts.

FOREST FIRE PROTECTION ON WEST COAST. Business Week, April 11: Last week, officials of the West Coast Lumbermen's Assn. and of federal and state forestry departments met in Seattle to check their joint efforts at organizing and equipping fire fighters in Washington, Oregon, and northern California. Crews have been doubled in each state. Washington, for instance, which normally maintains a force of about 400 experienced men, now has 800. One reason fire fighting is so important this year is that a smoke pall resulting from any large number of fires might prevent efficient sea and air patrol of coastal waters and would practically halt training of Army and Navy fliers in the Pacific Northwest. A new hazard arises from the troop trains which pass through the forests. To cut down fires from this source, the Lumbermen's Assn. will attempt to distribute fire-fighting manuals to each service man passing through the area this summer.

Much of the fire-fighting technique to be used is an expansion of methods developed on the "tree farms" maintained by large lumber concerns in the area, including two-way radio communication from portable sets. Because the Army has taken over the short-wave bands, the fire fighters this year will use television bands. The lookout on an isolated mountain-top will report to headquarters by high-frequency radio. Because the waves travel only in straight lines, do not curve with the earth's surface, messages will have to be relayed from point to point in many instances. However, this handicap is offset by the fact that lightning-storm static doesn't affect high-frequency communication. Parachutes will be used on a greatly increased scale this summer for dropping food supplies, equipment, and men to fire-fighting units in isolated areas or in territory cut off by fire from headquarters. The Lumbermen's Assn. is to start a long-range plan for training an army of forest fire fighters. An organization of Junior Forest Wardens is being set up for school children.

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COMANCHE WHEAT APPROVED BY KANS. STATION. Manhattan report in Farmers Elevator Guide, April: Comanche is a new, approved variety of wheat developed and tested by the Kansas Experiment Station from a hybrid of Oro and Tenmarq varieties. It combines excellent milling and baking qualities with high yield, good test weight, earliness of maturity, stiff straw, and resistance to leaf rust. The new variety seems to do best in the area extending from Kansas down through northern Texas. Commercial quantities are not expected to be available until the fall of 1943.

WAR OPENS NEW MARKETS FOR WEST COAST FARMERS. Country Gentleman, April: The war has opened unexpected new markets for Pacific Coast farmers. Southern California's population, by reason of the aircraft and shipbuilding boom, has increased 560,000 since the defense program started. Los Angeles is now the largest market for produce, milk and poultry west of Chicago. Both the Army and the Navy are buying for more than thirty camps and training stations. In a plant at Ontario, the output of concentrated citrus juice jumped last year from \$1,000,000 to \$7,000,000, practically all of it going to the British Isles. Cheese plants in Oregon and the Puget Sound area can sell all the Cheddar cheese they can turn out to the Army, the Navy and the British.

The walnut growers have two new outlets: In the Fresno area they are drying quantities of grapes, formerly fermented into sweet wines, for raisins for England. In ordinary times this country imports twenty million pounds of cream of tartar for baking powders. Now California wine makers are scraping the bottoms of their vats for the stuff, and boiling the pomace to get more. Oregon and Washington growers have a promising deal in quick-frozen berries packed in barrels for shipment to Britain for jams.

TOMATO-SEED OIL. Food Industries, April, in abstract of article in Brazilian publication: Tomato seeds, as a byproduct accumulating in the manufacture of tomato products, can be utilized as a source of edible oil. A sample of dried seed (with the down left on) yielded 17 percent oil by cold pressing. Extraction with ether on a laboratory scale gave a yield of 33.1 percent. Without any refining except a single filtration the oil was perfectly clear, with an agreeable odor and a bland flavor.

Tomato-seed oil is in the semidrying class and can be converted to a useful paint vehicle. It can also be used in soap making and as an illuminating oil. But its greatest value as an aid in lowering the production cost of tomato products is in its edible qualities. It is a readily acceptable salad oil and can also be used to good advantage in making margarine. Its physical and chemical properties are favorable to its utilization as a cooking fat. Its use is recommended as an added resource among the edible oils.

FARMERS SHOULD PLAN FOR WHEAT STORAGE NOW. Under this title, No. 8 of the FFF Program Background Information Series has been issued. It is available from Office of Information, Washington.

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REDUCING TIN IN TIN CANS. Food Industries, April: A tin conservation project of the National Canners Association Research Laboratories had as its objective a study of the practicability of reducing the amount of tin on tinplate used for food containers. Cans were manufactured from tinplate carrying two different weights of tin coating. Control cans carried the usual commercial tin coating then in use, while the experimental cans were prepared to effect a saving of 16.7 percent of tin. After the cans had been in storage for 12 months, the conclusion of the observers was that there was no difference in service value between the normal and light-weight tinplate. However, the loss in vacuum showed a somewhat greater loss in the case of dried sirup-packed prunes in cans with the lighter weight tin coating.

FOODS ARE ONE-THIRD OF LEASE-LEND TOTAL. Food Industries, April: Foodstuffs represent just over one-third of the shipments made under the Lease-Lend program in the first year of its operation, the President reported to Congress in March. The report listed 34 percent of shipments as foods, 29 percent military items and 37 percent industrial materials. Also disclosed was an unretarded monthly increase in Lease-Lend aid, to a level of \$569,000,000 in February and a cumulative 12-month total of \$2,570,000,000. The report notes that shipments of foods under Lease-Lend to Russia is now sharply increasing, mostly wheat, flour and sugar which would have come from the Ukraine normally. In addition to Russia and Britain, however, food shipments are going in considerable quantities to the Middle East--where milk, fish, bacon, cheese and vegetables all must be canned.

WOOL AND LAMB PRODUCTION STUDY. Country Gentlemen, April: It takes the wool from twenty-six sheep--about 200 pounds of it--to outfit a soldier with wool-containing equipment needed during his first year of service. After this initial outfitting it requires about seventy-five pounds of wool a year per man for replacements. The amount produced per animal varies considerably with the type and breed of sheep. Breeds of intermediate or dual-purpose type might be listed as Rambouillet, Hampshire, Shropshire, Corriedale, Columbia. In order to get information on the respective merits of these breeds for wool and lamb production, the U.S.D.A. analyzed their records.

CALIF. MAPS EMERGENCY WATER SUPPLIES IN RURAL AREAS. University of California Clip Sheet, April 22: Emergency water supplies which can be used in case normal sources serving rural areas are cut off by sabotage or actual military activities are now being mapped throughout the state under a program in which the State Council of Defense, State Department of Public Health, and California Extension Service are cooperating. More than 23,000 farmers are making the survey at the same time that they are carrying on a farm-to-farm checkup on fire hazards. Many parts of California, both rural and urban, are wholly dependent upon electric power or aqueducts for their water supply. Damage to power lines or to aqueducts could deprive large sections of the state of the water needed for drinking purposes and for watering livestock.